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PHONETIC SHIFTS IN ALGONQUIAN LANGUAGES

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THE LINGUISTIC POSITION OF NĀⁿWAθI-NÄHÄNAᴺ, AN ARAPAHO DIALECT

It has been known for a very long time that the Arapaho group of languages consisted of Arapaho proper, Atsina, and a few other dialects. Specimens of Nāⁿwaθinähänaⁿ and Bäsaⁿwūnenaⁿ have been published by Kroeber in his Arapaho Dialects, UC-PAAE, vol. 12:71—138; I have also heard the latter dialect. If Mooney wrongly identifies Nāⁿwaθinähänaⁿ with Naⁿwuinenaⁿ, a designation of the Southern Arapaho, (14th Ann. Rept. Bur. Amer. Ethn. pt. 2, p. 955; article *Arapaho*, Bull. 30, Bur. Amer. Ethn., pt. 1, p. 73) as Kroeber thinks (loc. cit., p. 74; see also Bull. Amer. Mus. N. H., vol. XVIII, pp. 5, 6, 7), and with which I feel compelled to agree, nevertheless it is only right to state that one of my best Northern Arapaho informants makes the same identification, which identification undoubtedly is made because both words under discussion have reference to the south. Notice that Mooney, 14th Ann. Rept. Bur. Amer. Ethn., pt. 2, p. 955, says "The Southern Arapaho .... In addition to their every day dialect, they are said to have an archaic dialect, some words of which approximate closely to Cheyenne," which important statement is ignored by Kroeber; I may add that Mooney in the article *Arapaho* referred to above, ignores Kroeber's strictures in Bull. Amer. Mu. N. H., vol. XVIII, pp. 5, 6, 7. Kroeber himself says (loc. cit., pp. 6, 7) "The Nāⁿwaçinähä'änaⁿ is considerably different from Arapaho. It alone, of all the dialects, has the sound *m*. In the form of its words, it diverges from Arapaho in the direction of Cheyenne. Grammatically, however, it is clearly Arapaho. This dialect is still remembered by some old people, but it is doubtful whether it is still spoken habitually by any one;" and on p. 81 of his "Arapaho Dialects" we read, "Nāⁿwuθinähänaⁿ not only departs farthest from Arapaho but stands nearest of the known Arapaho dialects to Cheyenne, and Eastern-Central Algonquian. It presents enough peculiarities, however, to be more than a mere transition."[1] Following this there is a brief discussion of some of the supposed phonetic shifts in the dialect.

Since knowledge of Algonquian linguistics has decidedly increased since 1916, especially by the labors of Bloomfield, I think it well to take up the question once more, using as a basis Kroeber's published vocabulary.

It is quite true that Nāⁿwaθinähänaⁿ seems to resemble Cheyenne in some respects. Thus Proto-Algonquian **l* and **θ* in both become *t* whereas in Arapaho they appear as *n* and *θ*. Observe, however, that **θ* becomes *t* not only in Nāⁿwaθinähänaⁿ but also in Cree and Atsina as well as Blackfoot; and that **l* also becomes *t* in Blackfoot. Very obviously such shifts would make some Nāⁿwaθinähänaⁿ words resemble Cheyenne ones. But in view of the distribution of these shifts this can scarcely be significant. That the remblances are merely casual is indicated by the chronology of shifts which can be established. In Cheyenne original **t* (and

[1] Kroeber gives both Nāⁿwa- and Nāⁿwu-.

nt*) become *st* after *i*-vowels (irrespective of their sources), but *t* from original **l* and **θ* does not suffer this change: which shows the change of **l* and **θ* to *t* in Cheyenne is subsequent to the shift of original **t* to *st* in the position outlined above. In Blackfoot original **t* (and **nt*) becomes *st* after *i*, but so does *t* from original **l* in contrast to *t* from original **θ* which remains: it thus appears that the change of **l* to *t* in that language is prior to the change of original **t* to *st* in the position named, and that the change of original **θ* to *t* is subsequent to that shift. Observe that in Nā^{n}waθinähăna^{n} secondary *t* is treated as original **t* (in none of the Arapaho dialects does *i* change original immediately following **t* to *st*). Note that in one case (θ*) Arapaho is archaic and Nā^{n}waθinähăna^{n} etc. have deviated from the original type.

The fact that Nā^{n}waθinähăna^{n} has initial *n* in the numeral 4 and 5, thus agreeing with Cheyenne, Ojibwa, etc. as opposed to Arapaho proper, Atsina, and Bäsa^{n}wūnena^{n} which have *y* is due to the fact that in these last original **ny-* becomes *y-*; so it does in Peoria, a normal Central Algonquian language: but as in this language postconantic **yä* becomes ī, the numeral 4 naturally has initial *n* (4 is Proto-Algonquian **nyäwi*). In this case Arapaho, etc. are not archaic but have deviated from the original type.

Of course Nā^{n}waθinähăna^{n} is archaic in retaining *m* where other Arapaho dialects have *b* or *w* according to the character of adjacent sounds. This naturally would make some Nā^{n}waθinähăna^{n} words look like Cheyenne ones.

Owing to the fact that in all Arapaho dialects save Nā^{n}waθinähăna^{n} Proto-Algonquian **w* becomes *n* we find the correspondence of *w*, *b* in Nā^{n}waθinähăna^{n} = *n* of the other dialects. Contrary to what Kroeber states, there are no cases of Nā^{n}waθinähăna^{n} *b* = Ojibwa *b* = *n* of Arapaho dialects. Incidentally I remark that where Bäsa^{n}wūnena^{n} apparently has *n* corresponding to Arapaho *b* it is only apparent, not real; disparate morphological elements are compared. Similarly it may be noted that in the comparative vocabulary bodily parts do not always have the same possessive pronominal elements, of which hardly sufficient intimation is given.

Where Nā^{n}waθinähăna^{n} has *t* corresponding not only to Cree *t*, but *t* in Central Algonquian languages in general, and where Arapaho has θ, the explanation is as follows: inanimate nouns in Proto-Algonquian ending in **-tci* in the singular had *-*talι* in the plural. Fox, Shawnee, and Arapaho proper (**tc* becomes *θ*) faithfully reflect the original conditions; but in most languages (e. g., Nā^{n}waθinähăna^{n}, Cree, Ojibwa, etc.) **tc* has been analogically replaced by *t*; in Cheyenne the reverse takes place (**tc* becoming *s*). Kroeber is quite in error in judging the forms under consideration. That is to say, that in this case where Nā^{n}waθinähăna^{n} approximates most Central Algonquian languages, it is due to the fact that analogical new-formations independently have replaced the ancient forms which are, as stated above, faithfully reflected in Arapaho, Fox, and Shawnee. Though divergent Algonquian, in this particular case Arapaho is archaic.

Where Nā^{n}waθinähăna^{n} has *ts* corresponding to Arapaho *θ*, Atsina usually agrees with the former: the explanation is that Proto-Algonquian **tc* is the archetype. Nā^{n}waθinähăna^{n} and Atsina approximate Central Algonquian languages in this shift, and are divergent from Arapaho and Cheyenne, because the first pair happen to be archaic.

Rarely it seems that Nā^{n}waθinähăna^{n} has *ts* corresponding to Arapaho *s*, Atsina *θ*, Bäsa^{n}wūnena^{n} *'s*; the archetype is **'θ* (Cree *st*, Menomini *'n*, Cheyenne *'h*, most Central Algonquian languages *s*).

It may be noted that it is possible that the glottal stop in original *'t* may be faithfully reflected in Nā^{n}waθinähăna^{n}. If so, the resemblance to Cheyenne would be only superficial; it would be an archaism (Menomini *'t*, Cheyenne *'t*, Cree *st*, *'t* in many central Algonquian languages).

Nāⁿwaθināhānaⁿ does indeed resemble Cheyenne in the treatment of original **-xkw-*, and in converting original **e* to an *a*-vowel. But it is surely a long cry to consider it as a transition to Cheyenne on the basis of these shifts. For it clearly has a correspondent to the (thus far unique) grammatical infix *-en-* of Arapaho; also note that it shares (with a possible minor variation) the characteristic changes of Arapaho in the treatment of original **-ck-*, **-p-*, **-nc-*. Lexically in the word for "nose" it agrees with Arapaho as opposed to Cheyenne (the Proto-Algonquian archetypes are **mexkuci* and **mexkēwani* respectively). It is useless to speculate whether a more extended vocabulary would tell us more.

Summing up, we may say that there is little, if any, reason to consider Nāⁿwaθināhānaⁿ (Nāⁿwu-) a transition form Arapaho to Cheyenne; the resemblances are apparently fortuitous; Mooney is vindicated to the extent that "some words of which approximate closely to Cheyenne;" Kroeber is right in his identifications (vide supra), but goes rather further than is legitimate in his linguistic inferences; the dialect contains some features of its own, some of which are unclear to me partly because the words cited are, as admitted by Kroeber, very dubious.

SUMMARY OF PHONETIC SHIFTS[1]

In order not to obscure the general line of argumentation in the body of this paper I have not proved the phonetic shifts mentioned. I sum these up here; and give a few more.

Proto-Algonquian 't becomes 'š in many Algonquian languages. — This is well known. Some languages show secondary changes from *'š* which is found in Sauk, Fox, Kickapoo, Peoria, Miami, Ojibwa for example. Proto-Algonquian **me'tekwi* "tree" is the archetype of S. F. K. *me'šegwi*, Ojibwa *mi'tig*, Cree *mistig*, Menomini *me'tek*.

[1] Phonetic key. — Most of the symbols are those in general use, and so will not have to be explained. Consequently the statements are brief.

Arapaho: *e* is short and open; *ē* is long and close; *o* is very open and short; ω is long and open; nasal vowels are purely rhetorical save after a nasal consonant: their nasality is indicated by a hook under the vowels; the "resonant" vowels after a glottal stop at the end of words might just as well be ommitted; similarly terminal *t* and *θ* are aspirated (probably x also), and so the aspiration does not need to be indicated; I have, however, let my notes stand; *ū* is long but unrounded. Words in Arapaho proper are those of my own collections. I have depended upon Kroeber for the other dialects. Occasionally I record *s* where Kroeber has *c*; one of my informants agrees with Kroeber's *c*.

Atsina. All words cited are in Kroeber's transcription.

Bāsaⁿwūnenaⁿ. All words cited are in Kroeber's transcription.

Blackfoot. All words cited are in Uhlenbeck's transcription.

Cheyenne. Long vowels have high tone. *e* is close. *ɛ* is open *e*; it interchanges with *i*; *i* is open; *į* is close: it occurs only before *y* (*ɤ*) and *h* in which positions *i* does not occur, and so might as well not be designated; I have not been consistent in recording the difference; *a* and *ɑ* probably are a single phoneme, though I have been pretty consistent in differentiating them; such cases as *-nⁿᵉ*, etc. could have just as well been recorded as *-n*, etc.; the younger generation does not pronounce the *ⁿᵉ*, etc., and probably the combination is only an exaggerated release without historical import; *-tsᶜ* is always aspirated and so there really is no need for designating the aspiration; similarly *tˢᶜ*; inferior vowels in cases as $\bar{a}_a$ mean feeble but sonant vowels; I believe that *ā* is always strictly $\bar{a}_a$; *-'ᵉ* is probably glottal stop plus normal release; it must be distinguished from *-'ᵘ* etc.; superior vowels are voiceless; cases such as *hō'mᵐᵃ* might just as well be written *-mᵃ*, for the surd *m* is merely a glide; *ɤ* (voiceless *y*) is merely a phase of *h*; they are a single phoneme; *'t* and *t* are difficult to distinguish; probably the long consonants are all accidental; the syllabification of *-st-*, etc. is *-s-t-*, etc.; superior consonants are whispered.

Cree. *ē* is long and close; no doubt *-g- -k-* are a single phoneme; in my opinion in such Cree dialects as I have heard *k* only occurs initially, medially only as the initial sound of a primary stem in composition, and in the combinations *hk*, *sk*; I hear *ɑ* not *a*.

Menomini. All words cited are in Bloomfield's transcription.

Nāwaθināhānaⁿ. All words cited are in Kroeber's transcription.

*Proto-Algonquian *'θ becomes s* (with secondary changes) *in several Algonquian languages.* — This also is well-known. Examples are S. F. K. *kuʿsäwa*, Cree *kustēw*, Menomini *ko'new*, Natick *kushau* = Proto-Algonquian **ku'θäwa* "he, she fears him, her;" cf. Ojibwa *kusād* (different mood).

*Proto-Algonquian *-tci *-talı reflected in Arapaho, Fox, Shawnee.* — Examples are Arapaho *wa'ω'θʿ* "foot" pl. *wa'ω'to'* = Proto-Algonquian **mexkātci*, **mexkātalı* (it is possible that final *-aki*, *-alı* fall together into *-o'* in Arapaho; analogical levelling is more plausible); Fox *uʿkāᵈtci* "his foot", pl. *uʿkātani* = **uxkātci* **uxkātalı*; Fox *uwīpiᵈtci* "his tooth", *uwīpitani* "his teeth", Shawnee (Gatschet) *wipitchi*, *wipitali* = **uwēpitci*, **uwēpitalı*; Shawnee *huthitchi* "his foot", *huthitali* "his feet" = **usitci*, **usitalı*[1]

*Proto-Algonquian *-tci levelled by *-talı in most Algonquian languages.* — The result is we have reflexes of **-ti* which violates ordinary Proto-Algonquian linguistics. Examples are Cree *miskāt* "leg" pl. *miskāta* (Proto-Algonquian **mexkātci*, **mexkātalı*), Abnaki (Laurent) *wkôd* "leg" (replacing Proto-Algonquian **uxkātci* "his leg"), Delaware (Brinton) *wikat* "leg", Ojibwa *uʿkād* "his leg," pl. *uʿkādan*, Natick *muhkont* "leg" (from **mexkāti*, replacing **mexkātci*); Cree *mīpit* "tooth", pl. *mīpita*, Delaware (Brinton) *wipit* "tooth", Ojibwa *wībid* "his tooth", pl. *wībidan*, Nāⁿwaθināhānaⁿ *meitcixta* "tooth", Proto-Algonquian **mēpitci*, **mēpitalı*, **uwēpitci* **uwēpitalı*; Cree *misit* "foot" *misita* "feet" Proto-Algonquian **mesitci mesitalı*, Ojibwa *usid* "his foot" pl. *usidan* Proto-Algonquian **usitci* **usitalı*[1].

All Arapaho dialects. — In none of the Arapaho dialects does *i* (irrespective of Proto-Algonquian source; where *u* is found corresponding to Proto-Algonquian **u*, it is always secondary and due to vocalic assimilation) convert an immediately following *t* (irrespective of Proto-Algonquian source) into *st*. Thus, Proto-Algonquian **ickutäwi* "fire" (Cree *iskutēw*, Menomini *iskō'täw*, Fox *aʿckutäwi*, Ojibwa *ickudä*, Cheyenne *ho'i'stᵃ*), Arapaho *hisi'tą*, Nāⁿwaθināhānaⁿ *ih'citāⁿ*, Bäsaⁿwūnenaⁿ *hixt*, *ih'täⁿ*, Atsina *isötäⁿ* (all meaning "fire"). Kroeber in his discussion of phonetic shifts (loc. cit.) does not often formulate the conditions under which they take place.

All Arapaho dialects save Nāwaθināhānaⁿ. — Proto-Algonquian **w* becomes *n* normally (cases where **w* disappears are not considered). Examples are Proto-Algonquian **uwēθani* "his tongue," Kickapoo *uwīnani*, Natick *wēnan*, Arapaho *hinē'θan*, Bäsaⁿwūnenaⁿ *hinīθan* (Atsina *biitani* corresponds to Arapaho *bēθa'n* = Proto-Algonquian **mēθani* "somebody's tongue"); Proto-Algonquian **nyäwi* "four," Fox *nyäwi*, Menomini *nīw*, Cheyenne *nivᵉ*, Arapaho *yēn*, Atsina *yäni*, Bäsaⁿwūnenaⁿ *yänänei*; Proto-Algonquian **wāwi* "egg," **wāwalı* "eggs" (Algonkin *wāw*, *wāwan*, Cree *wāwi*, *wāwa*; Cuoq years ago pointed out that in Ojibwa the plural analogically became the singular [*wāwan*], and that a new plural was formed on this; the same thing happened independently in Cheyenne and Fox); with Arapaho *hi'ω'θinǫ* "their feet" cf. Fox *u-wāwani* "their" [inan. pl.], *u-wāwaʿi* "their" [an. pl.]; Proto-Algonquian **meθe'ciwaya* "somebody's testicle", **neθe'ciwaya* "my testicle", Cheyenne *mata'xi'vᵘᵗˢʿ* (pl. *mata'xivu't*ᵘ), Cree *nitisiway*, Fox *neneʿcīwa*, Menomini *ninä'siway*, Arapaho *beθā's*, pl. *beθāsi'nǫ*; Proto-Algonquian **wēxpämaki* "I sleep with him, her", Fox *äʿwīʿpämagi*, Arapaho *hω't*ʿ *nītcωwo'* "I shall sleep with him, her" (for Arapaho *tc* see below; *ω* is caused by original timbre of the following consonant); with Proto-Algonquian **wētcyäwäwa* "he, she goes with, him, her" which is demanded by Cree *wītcēwēw*, Fox *wīᵈtcäwäwa*, Menomini *wītsīwäw* cf. Arapaho *hω't*ʿ *nīθωnē'nǫ* "he will go

[1] Fox *-anaʿsitä-* "sole of foot" (historically a compound) demands **-sitä-*, and hence **usitci*, **usitalı*; Kickapoo supports Fox. Cheyenne *-ahtᵃ* "foot" demands **-setä-*, unless it is a case of vocalic assimilation.

with me" (for θ = original **tc* see below; the original timbre of the following consonant has caused ω; *-ēnǫ* "he—me"); Proto-Algonquian **ixkwäwaki* "women" (Fox *i'kwäwagi*) Arapaho *hisē'no'ᵊ*; Proto-Algonquian **wāpuswa* "rabbit", Cree, Menomini *wāpus*, Fox (archaic and ceremonial only) *wâpu'swa*, Arapaho *nǫku*, cf. with different terminations Miami (Gatschet) *wapa'nswa* "rabbit", Menomini *wāpusō'hseh* "tiny rabbit", Ojibwa (Jones) *wâbōzōns* "bunny". — After palatal vowels **-xkw-* becomes *s* (*c*, θ): Proto-Algonquian **ixkwäwa* "woman", Cree *iskwēw*, Fox *i'kwäwa*, Arapaho *hi'sē*, Atsina *hiθā*, Bäsaⁿwunenaⁿ *hisänaⁿ* (probably plural; cf. Arapaho *hisē'no'ᵊ*).

Arapaho. — Proto-Algonquian **p* normally becomes *k*; it becomes *tc* by palatalization. (There is evidence that the other Arapaho dialects suffer the same changes, with some secondary modifications.) Thus, Proto-Algonquian **cē'cēpa* "duck", **cē'cēpaki* "ducks", Menomini *sē'sip*, Fox *cī'cīpa*, *cī'cīpagi*, Cheyenne *ŝi"ŝ*, Arapaho *sīsītcᶜ* "duck," *sīsīko'ᵊ* "ducks"; Proto-Algonquian **nepi* "water" (Fox *nepi*), Arapaho *ne'tcᶜ*, Atsina *nets*, *nits*, Bäsaⁿwūnenaⁿ *netsi*, Nāⁿwaθinähänaⁿ *netc*; Proto-Algonquian **wāpuswa*, Cree, Menomini *wāpus*, Arapaho *nǫ'ku*, Atsina *naⁿtse*, Bäsaⁿwūnenaⁿ *naⁿku* (Nāⁿwaθinähänaⁿ *māⁿkut* presumably belongs here; then it must have a different suffix; cf. above); Proto-Algonquian **mēpitci* "somebody's tooth", **mēpitalɪ* "somebody's teeth," **uwēpitci* "his tooth," **uwēpitalɪ* "his teeth" (Fox *mīpiᵈtci*, *mīpitani*, *uwīpiᵈtci*, *uwīpitani*;) Arapaho *bē'tciθ*, *bē'tcito'*, Atsina *bītsitᵗ* (analogical levelling), Bäsaⁿwūnenaⁿ *hinītcic*, Nāⁿwaθinähänaⁿ *meitcixta* (see above); Proto-Algonquian **peläwa* "turkey", Fox *penäwa* "turkey," Menomini *pinäwan* "quail" (obv.), Ojibwa *pinä* "ruffed grouse" (Jones), Shawnee *pelewa* "chicken" (Gatschet), Peoria *pilä'wa* "wild turkey, domestic turkey, chicken" (Gatschet), Arapaho *tce'ñä* "turkey, quail, grouse, prairie chicken, sage-hen" (though divergent Algonquian, in this case Arapaho is the determinant in establishing the Proto-Algonquian archetype[1] owing to the fact

[1] The normal Cree correspondent would be **piyēw*, but Bloomfield gives *pihēw*, *pihyēw* (*pihäw*, *pihyäw* in his transcription) [which is backed by Lacombe's *pihyew*], adding that it is a word the history of which he does not know. A ready solution is at hand. Cree *misihyew* (Lacombe; the restoration *misihyēw* is certain), "grosse perdrix, poule, coq", Ojibwa *missise* "turkey" (Baraga), Algonkin *misise* (Lemoine; the restoration *misisä* for both is practically certain in view of the vowel-quantities given by both Baraga and Lemoine, and the fact that in both Ojibwa and Algonkin *s* can not stand before original **i* or **ē*, but it can and does stand before *i* = original **e*) require a Proto-Algonquian archetype **me'θe'läwa*; for, as is known, only **'l* will satisfy the requirements of Ojibwa, Algonkin *s* = Cree *hy (h)*; and as Bloomfield has pointed out (Sacred Stories of the Sweet Grass Cree, p. 5) there is a tendency in Cree for *mis(i)-* "big" (Proto-Algonquian **me'ci-*) to be extended at the expense of *mist-* (Proto-Algonquian **me'θ-*). Cree *pihyēw* then stands for **piyēw* (**peläwa*) altered by *misihyēw*. How **peläwa* and **-e'läwa* are related is another question. There are parallels. Thus Cree *atim* "dog" requires Proto-Algonquian **aθemwa* (Kickapoo *anemwa*); Cree *-astim* "dog" requires **-a'θemwa*; these are matters of common knowledge and do not have to be proved here; Ojibwa *-asim* "dog" also requires **-a'θemwa*. For the lack of initial *p-* we have partial parallels in **nāpä-* "male" and **-āpä-*; etc. Of course these are only parallels, not explanations. Menomini *mesē'new* "turkey" (which is in Bloomfield's Texts) is difficult of solution. We should expect **me'sē'new* which could be combined with Cree *misihyew* under an old analogical formation **me'ci'läwa*; as is known Menomini *'n* = Cree *hy* calls for **'l*; and, as shown by Bloomfield; Proto-Algonquian vowel-quantities and qualities shift pretty freely in Menomini. It may be urged that *mesē'new* is merely an error, typographical or auditory, for **me'sē'new*. As the word occurs at least twice in Bloomfield's Texts, I do not think either of these explanations likely; a study has shown that Bloomfield has been very exact in recording glottal stops. [A similar difficulty is involved in Menomini *mäts-* "huge" which occurs many times in the Texts (Cree *mihtci-* is required by the examples in Watkins's Dictionary of the Cree Language; *mihtci-* occurs beside *misi-*).] Possibly *mesē'new* may be a phonetic dissimilation of **me'sē'new*. If not, I offer the following: years ago I showed that Menomini belongs closely to Cree (and now a few more facts confirm this); this means geographic proximity at some time. May

that *θ and *l merge into *l* in Shawnee and Peoria; and *θ, *l, and *n merge into *n* in Fox and Ojibwa); usually *bās tceñä* is used for "turkey, big grouse", which requires **me'cipelāwa* "big turkey", it is quite impossible to establish the exact primary meaning; Proto-Algonquian **pemuhtäte* "if he walks by", **pemuhθäwa* "he walks by", "Cree *pimuhtēw* "he walks", Fox *pemu'säwa* "he walks by", *pemu'säte* "if he walks by", Arapaho *tcäbi'sät'* "he walks by"; Proto-Algonquian **tcēpaya* "ghost", Fox *tcīpaiya*, Arapaho *θī'kᵘ* "corpse". Where we find the correspondence of Arapaho *tc* = Atsina *ty*, the archetype is **θc*, thus, Proto-Algonquian **meθcentcɪ* (unless already replaced by analogical **meθcentci*) "somebody's hand", Cree *mitcihtci*, Ojibwa *ninindj* "my hand" (both remarkable archaisms), Arapaho *bätce't'* (with *t* introduced from the plural; conversely Cree has extended *tc* into the plural unless Arapaho has made an analogical plural; Fox *-neᵃtcä-*, Cree *-tsihtcē-*, Menomini *-nähtsɪ-* require **-θcentcyä-* as pointed out by Bloomfield; so does Arapaho), Bāsaⁿwūnenaⁿ *hitcet* (**uθc-*), Atsina *bätyetyi*. — Proto-Algonquian **l* becomes *n*. Examples are Proto-Algonquian **ilenɪwa*, Cree *iyiniw*, Ojibwa *inini*, Arapaho *hinen*; Proto-Algonquian **wēlenwi* "fat," Cree *wīyin*, Fox *wīnenwi*, Cheyenne *vi'tᵉ*, Arapaho *nīne'n*; Proto-Algonquian **mēl-* "give," Cree *mī-y-*, Fox *mī-n-*, Shawnee *mī-l-*, Menomini *mē-n-*, Cheyenne *mi-ī-*, Arapaho *bī-n-*. — Proto-Algonquian **θ* remains in Arapaho. Examples are: Proto-Algonquian **neθeñkwi* "my arm-pit", **uθeñkwi* "his arm-pit", Ojibwa *niniñgwi*, *uniñgwi*, Kickapoo *unegwi* (Fox *-negwä-* "arm, wing" presupposes **-θeñkwä-*), Arapaho *ne'θē'* "my arm"; Proto-Algonquian **aθāñkwa* "star", Cree *atāhk*, Ojibwa *anāñg*, Fox *anāgwa*, Shawnee *alāgwa*, Arapaho *ha'θo'ᵒ*; Proto-Algonquian **meθeni* "somebody's nipple", **neθeni* "my nipple", Cree *mitini*, Cheyenne *naĭa'nⁿᵉ* (pl. *-anan*ⁿᵉ), Arapaho *be'θen*, *ne'θen*; Proto-Algonquian **neθeñkwaθehsa* "my cross-nephew", Fox *nenegwane'sa*, Menomini *ninä'hkʌnä'hsʌn* (obviative), Ojibwa *niniñgwanis*, Cree *nitihkwatim* (based on **neθeñkwaθema*; the form given above is strictly a diminutive); Proto-Algonquian **nēθemwa* "my sister-in-law" (male speaker), "my brother-in-law" (female speaker), Fox *nīnemwa*, Cree *nītim*, Menomin *nē'nim*, Cheyenne *niĭamᵐᵉ*, Arapaho *nēθe'bi* (based on a diminutive **-mōha*). — Proto-Algonquian **'θ* becomes *s*, thus, Proto-Algonquian **ne'θemya* "my daughter-in-law", Cree *nistim* (see Amer. Anthrop., N. S., 34, p. 357 et seq.), Ojibwa *nisim*, Fox *ne'semya* (presumably the Proto-Algonquian termination is analogical), Arapaho *nā'seb*; **ne'θ-* "my elder brother", **u'θ-* "his elder brother" (terminations largely new formations in the separate languages), Menomini *u'nä'hsʌn* (based on **u'θehsalɪ*), Fox *ne'se'sä'a* (based on **ne'θehsäha*), Arapaho *nā'se'ᵒ* (**ne'θe'sa*). — Proto-Algonquian *tc* becomes *θ* in Arapaho, thus, Proto-Algonquian **tcēmāni* "canoe", Fox *tcīmāni*, Cheyenne *si'mᵐᵘ* "boat", Arapaho *θī'ʷᵘ* "boat"; Proto-Algonquian **metcēlwi* "somebody's navel", **utcēlwi* "his, her navel", Kickapoo *utcīnwi*, Shawnee *hutcilwi* (Gatschet), Arapaho *be'θin*, *hi'θin*; Proto-Algonquian **tcēpaya* "corpse, ghost", Fox *tcīpaiya*, Cheyenne *sɨyutᵘ* "corpse" (**tcēpayaki*), *ⁿᵃsɨ'yutamᵐᵉ* "my dead" (**netcēpayema*), Arapaho *θī'kᵘ* "corpse"; see also the sections on Proto-Algonquian **-tci*, **-talɪ*. (p. 134) — Proto-Algonquian **ck-*

the Menomini word be a very old loanword from Cree before the change of **c* to *ɪ*, and before the change of **l* to *hy*, and **ā* to *ē*, but after the change of **'c* to *s* (or *c* which would merge with *s*) ? Otherwise *mesē'new* is left hanging in the air like Triśaŋku. Cheyenne *maxen* "turkey" which is given by Petter presumably is to be restored *ma'xhi'ⁿᵉ*; this can be united with Cree *misīnēw* (Watkins *misenāo*) "a large species of partridge, etc." under an archetype **me'cēnāwa*. Cree *pīnēw* (Watkins *penāo*) "partridge" is doubtless for **piyēw* (see above) altered *misīnēw*. — Incidentally I may add that Dr. Swanton tells me *pin-wa* "turkey" occurs in Creek with a purely Creek morphological unit *-wa*. The word is clearly an Algonquian loan-word, the source being presumably Sauk, Fox, Kickapoo *penāwa*.

becomes *x*, normally, *s (c)* when palatized. Thus, Proto-Algonquian **netañkeckawāwa* "I kick him, her", **tañkeckawäwa* "he, she kicks him, her", **tañkeckamwa* "he, she kicks it", Ojibwa *nindañgickawā*, *nindañgickān* "I kick it", Cree *tahkiskawēw*, *tahkiskam*, Arapaho *twa'xanǫθi'* "they (an.) kicked him, her" (*-ωθi'* they-him, her), *twa'xa'* "he, she kicked it" (*-xan-*, *-x-* unrecognized by Kroeder, but cf. Fox *-eckaw- -e'ck-*, Cheyenne *-a'ov- -a'-* also); Proto-Algonquian **ickutäwi* "fire", Cree *iskutēw*, Ojibwa *ickudä*, Menomini *iskō'täw*, Fox *ackutäwi*, Arapaho *hiši'tä*; Proto-Algonquian **meckēncekwi* "somebody's eye", **neckēncekwi* "my eye", **uckēncekwi* "his eye", Kickapoo *uskīcegwi* (Jones), Shawnee *huskisegwi* (Gatschet), Cree *miskīsig*, Ojibwa *nickīnjig* "my eye", Cheyenne *ma'e'x*^{a}, Nā^{n}waθināhāna^{n} *masixsan*, Bāsa^{n}wūnena^{n} *hicīsä* Atsina *besõθ*, Arapaho *beši'se'*^{e} Probably **-ckw-* has the same treatment in Arapaho: Proto-Algonquian **metuckwani* "somebody's elbow", **netuckwani* "my elbow", Cree *mituskwan*, *nituskwan*, Ojibwa *ninduckwan*, Cheyenne *^{ma}htse''ō'^{u}* "somebody's elbow," *^{na}htse''ō$^{nuts'}$* "my elbows" (**netuckwanalı*), Arapaho *beīšš*, *neīšš* (pl. *neīxa'nǫ*). It may be observed that **xk* shows a similarly treatment; but under certain conditions it also becomes ', and possibly other changes occur. Thus, Proto-Algonquian **uxkuni* "liver", Fox *u'kuni*, Cree *uskun*, Cheyenne *he''^{i}*, Arapaho *hiš*, *neīi'šineb* "my liver" (**netuxkunemi*); Proto-Algonquian **menexki* "somebody's arm", **nenexki* "my arm", Ojibwa *nini'k*, Cree *ukihtcinisk* "his right arm" (restored from Lacombe), Fox *nene'ki* "my hand", Arapaho *nene'š* (pl. *nenexo''*) "my arm", Proto-Algonquian **uxkani* "bone", Cree *uskan*, Ojibwa *u'kan* "his bone", Fox *a'kani* "bone" (with secondary initial *a-* for **u-*), Arapaho *hix'* (pl. *hixañǫ*); but note also Proto-Algonquian **mexkātci* "somebody's leg" (see above; "leg" is the original meaning; "foot" in Fox, etc. is secondary), Arapaho *wa'ωθ'*. Original **-xkw-* shows the same general treatment; see above, and note also Proto-Algonquian **amexkwa* "beaver", Cree *amisk*, Fox *ame'kwa*, Arapaho *he'beš*; Proto-Algonquian **maxkwa* "bear", Cree *maskwa*, Fox *ma'kwa*, Arapaho *wa'x'*, Proto-Algonquian **wāpaxkwa* "white bear," Cree *wāpask*, Arapaho *nǫkax'* (for **w* > *n*, **p* > *k* see above), Proto-Algonquian **mexkwāmi* "ice", Cree *miskwāmi*, Ojibwa *mi'kwām*, Cheyenne *ma''um^{me}*, Arapaho *wa''owu*, Proto-Algonquian **nexka* "goose", Cree *niska* "goose", Ojibwa *ni'ka* "wild goose", Arapaho *ne''* "goose, brant, crane". — Proto-Algonquian **ny-* becomes *y-*, thus Proto-Algonquian **nyäwi* "four", Fox *nyäwi*, Menomini *nīw*, Cheyenne *niv^{i}*, Arapaho *yēn* (see pp. 132, 134, 138, 171); Proto-Algonquian **nyālanwi* "five" is demanded by Tête de Boule *niyāran*, Shawnee *nyālanwi*, Abnaki *ɲalan'*, Fox *nyānanwi*, etc., but **nyāθanwi* is demanded by Arapaho *yω'θan* and the Arapaho dialects (the Cheyenne correspondent is difficult): see my paper 'The Proto-Algonquian archetype of "five,"' Language, IX, p. 270, et seq. — Proto-Algonquian **-nc-* becomes *-s-*. Thus, Proto-Algonquian **meckēncekwi* "somebody's eye," postulated by Cree *miskīsig*, etc. (see above), Arapaho *beši'se'*^{e}. — These are all the phonetic shifts strictly needed to an understanding of the general argumentation presented above. Yet one or two other statements may not be amiss. Original final **n+* vowel is ordinarily lost; original **w* after consonants is lost; also original terminal **w+*vowel; glottal stops before consonants and nasals before consonants are lost; there is a very complex system of vocalic harmony; and a complex rhythmic system makes some original short vowels long, and some original long vowels short; original **o* and **u* vowels appear primarily as *i*-vowels; original **e* is normally maintained but is subject to changes; original **ā* normally appears as *ω*. Proof of these assertions may be found in the Arapaho words cited above.

Atsina. — Proto-Algonquian **tc* becomes *ts*. Thus, Proto-Algonquian **mexkātci* "some-

body's leg", **uxkātci* "his leg", Fox *u'kā^{a}tci*, Atsina *wa'a^{n}ts*. — Proto-Algonquian **θ* becomes *t*. Thus, Proto-Algonquian **mēθani* "somebody's tongue", **uwēθani* "his tongue", Kickapoo *uwīnani*, Arapaho *hinē'θan*, Atsina *biitani*. — Proto-Algonquian **l* becomes *n*. Thus, Proto-Algonquian **ilenɪwa*, Cree *iyiniw*, Ojibwa *inini*, Shawnee *hileni*, Atsina *hineni*. — Proto-Algonquian **ny-* becomes *y-*. Examples are: Proto-Algonquian **nyāwi* "four", Fox **nyāwi*, Atsina *yāni*; Proto-Algonquian **nyālanwi* (**nyāθanwi*), Têtе de Boule *niyāran*, Fox *nyānanwi*, Shawnee *nyālanwi*, Arapaho *yo'θan*, Atsina *yātani*. — Proto-Algonquian **'θ* becomes *θ*. Thus, Proto-Algonquian **ne'θwi* "three", Cree *nistu*, Fox *ne'swi*, Arapaho *nā'sa'*, Atsina *nāθā'*; Proto-Algonquian **ne'θ-* "my elder brother", **u'θ-* "his, her elder brother" (see the discussion under Arapaho), Fox *ne'se'sä'a*, Menomini *u'nä'hsʌn*, Arapaho *nāse'e*, Atsina *nāθähā'*.

Bāsa^{n}wūnena^{n}. — Proto-Algonquian **l* becomes *n*. This, Proto-Algonquian **ilenɪwa* "man", Cree *iyiniw*, Ojibwa *inini*, Shawnee *hileni*, Bāsa^{n}wūnena^{n} *hini*. — Proto-Algonquian **θ* becomes *θ*. Thus, Proto-Algonquian **uwēθani* "his tongue", Kickapoo *uwīnani*, Arapaho *hinēθan*, Bāsa^{n}wūnena^{n} *hinīθan*. — Proto-Algonquian **'θ* becomes *'s*. Thus Proto-Algonquian **ne'θ-* "my elder brother", Fox *ne'se'sä'a*, Menomini *u'nä'hsʌn*, Bāsa^{n}wūnena^{n} *nih'sa*; Proto-Algonquian **ne'θwi* "three", Fox *ne'swi*, Cree *nistu*, Bāsa^{n}wūnena^{n} *nänāsei* (error in recording ?). — Proto-Algonquian **ny-* becomes *y–n* (with vocalic harmony). Thus, Proto-Algonquian **nyāwi* "four", Fox *nyāwi*, Arapaho *yēn*, Bāsa^{n}wūnena^{n} *yānānei*; Proto-Algonquian **nyālanwi* (**nyāθanwi*) "five", Têtе de Boule *niyāran*, Fox *nyānanwi*, Shawnee *nyālanwi*, Arapaho *yo'θan*, Bāsa^{n}wūnena^{n} *yanaθanī'*. — Where Bāsa^{n}wūnena^{n} *n* apparently corresponds to Arapaho *b*, disparate elements are compared. Thus, Proto-Algonquian **uwēpitci* "his, her tooth", Fox *uwīpi^{a}tci*, Bāsa^{n}wūnena^{n} *hinītcic*; Proto-Algonquian **mēpitci* "somebody's tooth", Cree *mīpit* (analogical for **mīpitc*), Arapaho *bē'tciθ* (Michelson), *beitciθ*, (Kroeber).

Nā^{n}waθinähāna^{n}. — Nā^{n}waθinähāna^{n} has the characteristic *n*-infix in durative verbs of Arapaho (on which see Michelson, Studies in Honor of Hermann Collitz, pp. 41, 42), thus, *mänacie* "big" (form ?), Arapaho *benāsinesät'* "he has a large arm" (but *bāsi-*, Proto-Algonquian **me'ci-*, shown especially by Menomini *me'sɪw* "it is large", Fox *me'cāwi*, though also demonstrable from the alternate **me'θ-* postulate by Cree *mist-*, Menomini *me'n-*, Ojibwa *mis-*), Atsina *bāsöu* (form ?), Bāsa^{n}wūnena^{n} *bänāsa^{n}* (form ? is given by Kroeber as also Arapaho proper). The change of *e* to *ä* is otherwise unparalleled in Nā^{n}waθinähāna^{n}; and since Kroeber often records *ä* in Arapaho where I record *e*, it is possible that Kroeber's informant may have colored Nā^{n}waθinähāna^{n} by his vernacular Arapaho. — A peculiarity of Nā^{n}waθinähā'na^{n} is *moxtsiä^{n}* "black." I do not understand the form but obvioulsy Proto-Algonquian **mahkatäwē-* is the base (Cree *mahkatēwāw* "it is black", derived from **mahkatäwāwi*, Ojibwa *ma'katäwā*, Fox *ma'katäwī-*, Cheyenne *imu'^{u}tav^{u}* "it is black", derived from **u* + **mahkatäwā*). Kroeber gives Arapaho *wa'otä^{n}*, Atsina *wa'otä^{n}ya^{n}*, Bāsa^{n}wūnena^{n} *wa'otä^{n}*. Incidentally *moxtsiä^{n}* has been influenced by *wanatsiän* "white" as is shown by Atsina *nanā^{n}tsa*. My own Arapaho notes are none too good: I have recorded *wo'tän-* "black", also *wa'tänax* "black bear" (based on **mahkatäwaxkwa* cf. Cree *usāwask* "brown bear", based upon **usāwaxkwa*); also *wo'a'-tāyo'* "black" (form ?, cf. *nīhωyω'* "yellow"). — As noted by Kroeber a parasitic *x(h)* is characteristic before *t*, *ts*, and *s*; he notes that in Cheyenne a similar state of affairs exists which is confirmed by my own Cheyenne notes. Much the same also occurs in Blackfoot. I regret that I have been unable to determine the precise conditions under which it occurs in Nā^{n}waθinähāna^{n}. — The history of Proto-Algonquian **a* in Nā^{n}waθinähāna^{n}

is quite uncertain; it appears now as *a*, now as *o*: on the basis of the material it is impossible to determine which is the normal correspondent, for vocalic assimilation is possible in all cases. In this connection it may be noted that vocalic assimilation occurs in Arapaho, Nāⁿwaθinähāhānaⁿ, etc. though they do not agree absolutely among themselves. — Proto-Algonquian **e* becomes an *a*-vowel in Nāⁿwaθinähāhānaⁿ. Thus, Proto-Algonquian **mexkuci* "somebody's nose, beak, bill", Ojibwa *u'kuj* "his, her bill, beak", Arapaho *bē'is'*, Atsina *beisᵉ*, Bāsaⁿwūnenaⁿ *hiθeä*, Nāⁿwaθinähāhānaⁿ *mais*; Proto-Algonquian **metōni*, "somebody's mouth", **utōni* "his, her mouth", Kickapoo *utōni*, Cree *mitōn*, Arapaho (Kroeber) *bäti*, *be'tį* (Michelson) Atsina *betyī'*, Bāsaⁿwūnenaⁿ *hitcinā*, Nāⁿwaθinähāhānaⁿ *matīn*; Proto-Algonquian **meçkwi* "blood," **meçkw-* "red", Cree *mihku*, *mihku-*; Fox *meʻckwi*, *meʻckw-*, Menomini *mehkīh* "blood", *mehkɯw* "it is red", Ojibwa *mickwi*, Natick *musqueu* "it is red", Arapaho *bä''ᵉ* "blood" (another informant *be''*), *bä-* "red" (Kroeber), Atsina *baxa'aⁿ*, Cheyenne *ma'ᵉ* "blood", Nāⁿwaθinähāhānaⁿ *maoxtaheini* (termination obscure); Proto-Algonquian **nemehcōmehs* "my grandfather", **kemehcōmehsa* "thy grandfather", **umehcōmehsalı* "his, her grandfather", Fox *neme'cōme'sa*, *keme'cōme'sa*, *ume'cōme'sani*, Menomini *umähsumähsan*, Ojibwa *nimicōmis*, Cheyenne *na'm'sim*, Arapaho *nebesī'beᵉ* (*š* according to one informant), Atsina *näbeseip*, Bāsaⁿwūnenaⁿ *näbäcibähä'*, Nāⁿwaθinähāhānaⁿ *(h)amacīm* (presumably "thy grandfather": the form would otherwise be unintelligible); Proto-Algonquian **amexkwa* "beaver", Cree *amisk*, Montagnais *amishkŭ* (Lemoine), *Amikwa* (name of an Algonquian tribe), Fox *ame'kwa*, Ojibwa *ami'k*, Mahican (Edwards) *amisque*, Cheyenne *homa''ᵉ*, Arapaho *he'beš* (the plural *hebesī* = **amexkōki*, an archaism as contrasted with Fox *ame'kwagi* which is analogical despite the fact that at least Cree and Ojibwa have similar formations), Atsina *häbes*, Bāsaⁿwūnenaⁿ *häbäc*, Nāⁿwaθinähāhānaⁿ *hamaha'*; Proto-Algonquian **meckēncekwi* "somebody's eye", **uckēncekwi* "his, her eye", Cree *miskīsig*, Natick *muskēsuk*, Kickapoo (Jones) *uskīcegwi*, Ojibwa *nickīnjig* "my eye", Menomini *uskē'hsik* "his face" ("face" and "eye" interchange in several Algonquian languages), Cheyenne *ma'e'xⁿ*, Arapaho *besī'se'ᵉ*, Atsina *besŏθ*, Bāsaⁿwūnenaⁿ *hicīsä*, Nāⁿwaθinähāhānaⁿ *masixsan*; Fox *meʻtäʻi* "bow", Arapaho *bätä* (Kroeber), Bāsaⁿwūnenaⁿ *bätä*, Atsina *bät*, Nāⁿwaθinähāhānaⁿ *ma'axta* (the exact archetype is unknown owing to the changes of original **k* and compounds of this in both the Cheyenne and Arapaho groups and the ordinary loss of final **-ni* in them; it is possible that Menomini *umä''tikwʌn* "his bow" may be a cognate; but initial **me't-* is assured in any case); Proto-Algonquian **me'ci-* "big," Menomini *me'sɯ* "it is large," Fox *meʻci-*, *meʻcāwi* "it is big", Cree *misāw*, Ojibwa *micā*, Cheyenne *ma'xi-*; Arapaho *bäsi-*, *benā'sēθenǫ* "I am big" (with the characteristic *n*-infix), Atsina *bäsöu*, Bāsaⁿwūnenaⁿ *bändsa*ⁿ, Nāⁿwaθinähāhānaⁿ *mänacie*; Proto-Algonquian **aθemwa* "dog", Cree *atim*, Cheyenne (Petter) *hotam*, Kickapoo *anemwa*, Arapaho *he'θ'* (with vocalic assimilation: cf. the plural *heθebī* = Proto-Algonquian **aθemōki*; the Cree plural is analogical), Atsina *hote*, Bāsaⁿwūnenaⁿ *häθä* (pl. *häθäbiha*ⁿ; this really has a double plural termination), Nāⁿwaθinähāhānaⁿ *hatam*; Proto-Algonquian **netāna* "my daughter", **netānehsa* "my daughter" (with the diminutive suffix), Cree *nitānis*, Fox *netāne'sa*, Ojibwa *nindānis*, Menomini *nitā'n*, Cheyenne *naʰtō'nⁿᵃ*, Arapaho (Kroeber) *natane*, Atsina *natan*, Bāsaⁿwūnenaⁿ *natänä*, Nāⁿwaθinähāhānaⁿ *naxtänähä*; Proto-Algonquian **metātahθwi* "ten," **metātahciwaki* "they (an.) are ten in number", **metātahθenwi* "ten times", Cree *mitātaht*, *mitātasiwag*, Ruperts House Montagnais (Dr. Cooper) *mita't*ᵘ (haplology), Menomini *mitātahsiwʌkin*, *mitā'tahne'nuh*, Fox *metā'swi*, *metā'ciwagi*, *metā'senwi* (haplology in all; so too Ojibwa *midāswi*, etc.; Delaware and Abnaki demand the loss of

**tah* not merely **ta*), Arapaho *be'täta'x* (with vocalic assimilation; probably influenced by the equivalent of **metätahci-*, though Kroeber gives *bätätax*^{u}), Bäsa^{n}wünena^{n} *bätcätoxe*, Atsina *betā^{n}tos* (probably = **metätahθwi*), Cheyenne (Petter) *matòtô* (presumably = **metätahθwi*), Nā^{n}waθinähäna^{n} *maxtoxtahähä^{n}*. — Proto-Algonquian **e* appears as *e* when induced by vocalic assimilation. Thus, Proto-Algonquian **ilenwa* "man", Cree *iyiniw*, Menomini *inänɯ*, Ojibwa *inini*, Cheyenne *hita'n^{n}^{e}*, Arapaho *hinen*, Atsina *hineni*, Bäsa^{n}wünena^{n} *hini*, Nā^{n}waθinähäna^{n} *hiten*. — Proto-Algonquian **e* becomes *i* when caused by vocalic assimilation: Proto-Algonquian **ne'θ-* "my elder brother", Cree *nistēs*, Fox *ne'se'sä'a*, Menomini *u'nähsʌn* "his, her elder brother" *(*u'θehsalı)*, Ojibwa *nisayä*, Arapaho *näse'he'e (*ne'θehse'sa?)*, Atsina *näθähä'*, Bäsa^{n}wünena^{n} *nih'sa*, Nā^{n}waθinähäna^{n} *nixtsian*. — Proto-Algonquian **e* becomes *o* caused by vocalic assimilation. Thus, Proto-Algonquian **mexkätci* "somebody's leg, paw", Cree *miskāt* (with analogical *t* for *tc*; the plural is the disturbing factor), Arapaho *wa'ω'θ'*, Atsina *wa'a^{n}ts* (both with vocalic assimilation in the first syllable); Cheyenne *mazhess* (Petter) is analogical, presupposing **metuxkätci*, and hence is ultimately based upon **uxkätci* "his leg, paw", Nā^{n}waθinähäna^{n} *mo'oxts*. — Proto-Algonquian **-xk-* between vowels presumably has the same history as in Arapaho to judge from Proto-Algonquian **mexkuci* "somebody's nose, beak", Ojibwa *u'kuj* "his, her bill, beak", Arapaho *bē'is'* "somebody's nose", Atsina *beis^{a}*, Bäsa^{n}wünena^{n} *hiθeä*, Nā^{n}waθinähäna^{n} *mais* (since Krober does not recorded the glottal stop in any of the Arapaho dialects in this word which certainly exists in Arapaho proper it probably is present everywhere: this would agree with his transcription in other cases); Proto-Algonquian **mexkenähkwa* "tortoise, turtle", Cree *miskinähk* (Cree *mihkinähk* is an Ojibwa loan-word; the Montagnais dialects faithfully reflect *miskinähk*), Menomini *mihkä'näh* (pl. *mihkänä'hkuk* faithfully reflecting **mexkenähkōki*), Ojibwa *mi'kinä'k*, Cheyenne *ma'i'n^{n}^{u}* (with difficult *i*), Arapaho (Kroeber) *bä'äna^{n}*, Atsina *bä'änou*, Bäsa^{n}wünena^{n} *bä'än*, Nāwaθinähäna^{n} *ma'äna^{n}hā^{n};* unfortunately there are no examples to show whether Nā^{n}waθinähäna^{n} agrees in detail with Arapaho or Cheyenne; Proto-Algonquian **mexkätci* "somebody's leg, hind-paw", Cree *miskāt* (with analogical *t* introduced from the plural; so too in many Algonquian languages), Abnaki *wkôd* "leg", Delaware (Brinton) *wikat* "leg", Fox *u'kā^{d}tci* "his, her foot", Menomini *nihkāt* "my leg", Natick *muhkont* "leg", Ojibwa *u'kād* "his, her leg", Cheyenne (Petter) *mahess* "somebody's foot", derived from **metuxkätci*, in last analysis from **uxkätci*, Arapaho *wa'ω'θ'*, Atsina *wa'a^{n}ts*, Bäsa^{n}wünena^{n} *hi'ā^{n}c* "his, her leg" Nā^{n}waθinähana^{n} *mo'oxts* indicate agreement with Arapaho. — Proto-Algonquian **-xkw-* presumably has the same history as in Cheyenne, yet we have only example upon which to base this conclusion, namely, Proto-Algonquian **ixkwäwa*, Cree *iskwēw*, Fox *i'kwäwa*, Ojibwa *i'kwä*, etc., Cheyenne *he'"i* (owing to secondary changes Proto-Algonquian **ixkwäwa* "woman" and Proto-Algonquian **uxkuni* "liver" fall together in Cheyenne: **uxkuni* is demanded by Arapaho *hiš*, Cree *uskun*, Fox *u'kuni*, etc.), Arapaho *hišē*, Atsina *hiθā*, Bäsa^{n}wünena^{n} *hisäna^{n}* (plural), Nā^{n}waθinähäna^{n} *hihi'i*. — Proto-Algonquian **-ck-* appears as *s* and *'c*; whether the quality of the adjacent vowels is the determinant or whether both are graphical for a single sound can not be determined with certainty owing to the paucity of examples: Proto-Algonquian **ickutäwi* "fire", Cree *iskutēw*, Fox *a'ckutäwi*, Menomini *iskō'täw*, Ojibwa *ickudä*, Cheyenne *ho'i'st^{a}*, Arapaho *hīsi'tä*, Atsina *isötä^{n}*, Nā^{n}waθinähäna^{n} *ih'citā^{n}*; Proto-Algonquian **meckēncekwi* "somebody's eye", etc., Cree *miskīsig*, Kickapoo (Jones) *uskīcegwi*, Menomini *uskē'hsik* "his face", Ojibwa *nickīnjig*, Arapaho *besī'se'^{e}*, Atsina *besöθ*, Bäsa^{n}wünena^{n} *hicīsä*, Nā^{n}waθinähäna^{n} *ma-*

sixsan. — Proto-Algonquian **tc* becomes *ts*. Thus, Proto-Algonquian **mexkātci* "somebody's leg, paw" (to judge from Cree, Menomini, and Ojibwa the meaning "foot" of a human being is secondary; but this meaning is very common), Fox *u'kā^{d}tci* "his, her foot", derived from **uxkātci*, Arapaho *wa'ω'θ'* "somebody's foot" (and so in all the Arapaho dialects), Atsina *wa'a^{n}ts*, Bâsa^{n}wūnena^{n} *hi'ā^{n}c (*uxkātci)*, Nā^{n}waθinähāna^{n} *mo'oxts*. (Cheyenne *mazhess* (Petter) is derived from **metuxkātci*, an analogical formation based upon **uxkātci*.) — Proto-Algonquian **θ* becomes *t*, thus, Proto-Algonquian **aθemwa* "dog", Cree *atim*, Kickapoo *anemwa*, Cheyenne (Petter) *hotam*, Arapaho *he'θ'* (with vocalic assimilation; cf. the plural *heθebī* = **aθemōki*, an archaism: the Cree plural is analogical), Atsina *hote*; Bâsa^{n}wūnena^{n} *häθä* (pl. *häθäbiha^{n}* with an analogical double plural termination to make the word fit in ordinary scheme), Nā^{n}waθinähāna^{n} *hatam*. — Proto-Algonquian **l* becomes *t*. Thus, Proto-Algonquian **ilenιwa* "man", Plains Cree *iyiniw*, Tête de Boule *iriniw*, Ojibwa *inini*, Menomini *inänιw*, Cheyenne *hitan^{n_e}*, Arapaho *hinen*, Atsina *hineni*, Bâsa^{n}wūnena^{n} *hini*, Nā^{n}waθinähänan *hiten*. — Proto-Algonquian **-nc-* appears as *-xs*, thus, Proto-Algonquian **meckēncekwi*, "somebody's eye", **neckēncekwi* "my eye", **uckēncekwi* "his eye," Cree *miskīsig*, Kickapoo (Jones) *uskīcegwi*, Shawnee (Gatschet) *huskisegwi*, Natick *muskēsuk*, Menomini *uskē'hsik* "his face" (as is generally known, "eye" and "face" interchange freely in several Algonquian languages; this interchange may be Proto-Algonquian: but I have not material enough to establish this with certainty), Arapaho *besī'se'^{e}* (another informant *besī'są*), Atsina *besöθ*, Bâsa^{n}wūnena^{n} *hicīsä*, Nā^{n}waθinähāna^{n} *masixsan*. — Proto-Algonquian **p* becomes *tc* when palatized (as in Arapaho, but in sharp contrast with the history of *p* in Cheyenne), thus, Proto-Algonquian **nepi* "water," Fox *nepi*, Cree *nipi*, Arapaho *ne'tc'*, Atsina *nets*, *nits*, Bâsa^{n}wūnena^{n} *netsi*, Nā^{n}waθinähāna^{n} *netc*; Proto-Algonquian **mēpitci* "somebody's tooth," **uwēpitci* "his, her tooth," Cree *mīpit* (with analogical *t* for *tc*; similarly in many Algonquian languages), Fox *uwīpi^{d}tci*, Shawnee (Gatschet) *wipitchi*, Cheyenne *vē's* "tooth" (**wēpitci*, extracted from **uwēpitci*), Arapaho *bē'tciθ*, Atsina *bītsit^{i}* (with analogical *t*), Bâsa^{n}wūnena^{n} *hinītcic* (**uwēpitci*; for the final *c* cf. *hi'ā^{n}c* = Fox *u'kā^{d}tci*), Nā^{n}waθinähāna^{n} *meitcixta* (probably plural; Proto-Algonquian **mēpitali*). — The history of Proto-Algonquian **p* when not palatized is not quite certain. Since when palatized it has the same history in Nā^{n}waθinähāna^{n} as it has in Arapaho, presumably the normal correspondent would agree with Arapaho *(k)*. However we only have the word *mā^{n}kut* "rabbit" with which to operate. If this is to be connected with Arapaho *nǫku*, Atsina *na^{n}tse*, Bâsa^{n}wūnena^{n} *na^{n}k^{u}* (given by Kroeber as also the Arapaho form), Cree, Menomini *wāpus*, Miami (Gatschet) *wapa'nswa*, Menomini *wāpusō'hseh* "tiny rabbit", Ojibwa (Jones) *wâbōzōns* "bunny", it must have a peculiar suffix. — Proto-Algonquian **m* remains in Nā^{n}waθinähāna^{n}. Examples are: Proto-Algonquian **aθemwa* "dog", Cree *atim*, Cheyenne (Petter) *hotam*, Kickapoo *anemwa*, Menomini *ʌnä'm*, Arapaho *he'θ'* (pl. *heθebī* = Proto-Algonquian **aθemōki*; vocalic assimilation), Atsina *hote*, Bâsa^{n}wūnena^{n} *häθä*, Nā^{n}waθinähāna^{n} *hatam*; Proto-Algonquian **mexkātci* "somebody's leg, paw", Cree *miskāt* (*t* for **tc* by the influence of the plural; similarly in many Algonquian languages), Natick *muhkont* "leg", Arapaho *wa'ω'θ'*, Atsina *wa'a^{n}ts*, Nā^{n}waθinähāna^{n} *mo'oxts*; Proto-Algonquian **amexkwa* "beaver", Cree *amisk*, Montagnais *amishkŭ* (Lemoine), Cheyenne *homa''^{s}*, Fox *ame'kwa*, Mahican (Edwards) *amisque*, Ojibwa *ami'k*, Arapaho *he'beš* (with vocalix assimilation; so also the other Arapaho dialects save Nā^{n}waθinähāna^{n}), Atsina *häbes*, Bâsa^{n}wūnena^{n} *häbäc*, Nā^{n}waθinähāna^{n} *hamaha'*; Proto-Algonquian **mehci* "fuel-wood", Ojibwa *mici*, Arapaho *be'š* "wood", Atsina *bis*, Bâsa^{n}wūnena^{n} *bäsi*,

Nāⁿwaθināhānaⁿ *ma'* (Cree *miht* "fuel, firewood" assures the archetype **mehci*: the plural **mehθalɪ* is demanded by well-known consideration; Cree has generalized *ht* [for earlier **hθ*] from the plural; in the other languages **hc* of the singular has been extended to the plural; the change of **hθ* to **hc* when immediately preceding **i* is so well-known that this point does not have to be proved here); Proto-Algonquian **kemehcōma*, **kemehcōmehsa* "thy grandfather" (*ne-*, *u-* also with both, etc.), Fox *keme'cōma* "thy father-in-law," *keme'cōme'sa* "thy grandfather," Ojibwa *nimicōmis*, Menomini *umähsumähsan*, Cheyenne *na'm'sim*, Arapaho *nebesī'be'ᵉ*, Atsina *näbeseip*, Bäsaⁿwūnenaⁿ *näbäcibähä'*, Nāⁿwaθināhānaⁿ *(h)amacīm* "thy grandfather" (so; otherwise the word is unintelligible); Proto-Algonquian **myäxkanāwi* "trail, road", Cree *mēskanāw*, Ojibwa *mī'kanā*, Cheyenne *mɨyo'ᵘ* (pl. *mɨyonⁿᵘtsᶜ* is analogical but shows the medial *n*), Arapaho *ba'aⁿ* (Kroeber; *bɑω'ω*, Michelson, pl. *bɑωωnφ*), Bäsaⁿwūnenaⁿ *ba'ah*, Nāⁿwaθināhānaⁿ *mihiaⁿ* (with *h* presumably for '; and then **yä* after **m* must become *i* whereas after **n* it becomes *ia*, e. g., Proto-Algonquian **nyäwi* "four," Fox *nyäwi*, Menomini *nīw*, Cheyenne *nivᵉ*, Arapaho *yēn*, Atsina *yäni*, Bäsaⁿwūnenaⁿ *yänänei*, Nāⁿwaθināhānaⁿ *niabaha'*); presumably Arapaho *bīta'āⁿwu*, Atsina and Bäsaⁿwūnenaⁿ *bīta'awu*, Nāⁿwaθināhānaⁿ *miixta'amu* belong here but I do not know their detailed history; there are a few other cases which likewise probably belong here. — Proto-Algonquian **w* apparently appears in Nāⁿwaθināhānaⁿ as *w*, *b*, and perhaps *m*; there are too few examples to make it possible to determine the exact conditions under which these shifts operate. Examples are Atsina *nanāⁿtsa* "white" (it will be recalled that **w* appears as *n* in Atsina, etc.), Nāⁿwaθināhānaⁿ *wanātsiäⁿ* (I do not know the detailed history of these words); Proto-Algonquian **nyäwi* "four", Fox *nyäwi*, Menomini *nēw*, Cheyenne *ni'vᵉ*, Arapaho *yēn*, Atsina *yäni*, Bäsaⁿwūsenaⁿ *yänänei*, Nāⁿwaθināhānaⁿ *niabaha'*; presumably Atsina *nīn* "house", Bäsaⁿwūnenaⁿ *nī'in*, Nānwaθināhānaⁿ *mī'in* belong here; if Nāⁿwaθināhānaⁿ *māⁿkut* "rabbit" is connected with Cree *wāpus*, etc. then **w* at times must appear as *m*: see the discussion of the history of Proto-Algonquian **p*.

Blackfoot. — General remark. Owing to the fact that metathesis occurs on a rather large scale in Blackfoot (first exploited by Sapir, Am. Anthr., N. S. 15: 624, 630), that vocalic assimilation to other vowels occurs, that the quality of consonants (notably *p*, *m*, *w*) colors the timbre of adjacent vowels, that the same Blackfoot vowel when derived from different sources does not invariably have the same transforming effect on adjacent consonants (notably *i*: when derived from original **i* and **ɪ* it converts a preceeding *k*, *p*, *t* to *ks*, *ps*, *ts*; but when derived from **ä* it does not convert *k* and *p* to *ks* and *ps* respectively, but does, at least under some conditions, convert *t* to *ts*; when derived from **a* a preceeding *k* does not become *ks* nor *p ps*; when derived from **e* a following original **t* does not become *st*, but *i* derived from original **a* certainly causes *t*, at least when derived from original **l*, to become *st*; original **i* and **ē* convert original **t*, **ht*, **nt* when immediately following into *st* as well as *t* derived from **y*, but not *t* derived from **θ*; *i* when derived from **a* converts **t* when immediately preceeding to *ts* [Proto-Algonquian **uxkātalɪ*, Fox *u'kātani*, Blackfoot *oxka'tsists*]; which shows differences in the chronology of changes), that *t* when derived from different sources does not behave exactly alike, that cases like **netempi* "my brain" at times are wrongly analyzed as **ne-t-empi* [whereas the true analysis is **netempi*] with the result that **empi* has been abstracted and then used independently with the appropriate phonetic shifts (there is some evidence to show that similar analogical forms exist in verbs), that dissimilation of consonants is not uncommon, that certain contractions take place — all contribute towards

making Blackfoot vocabularly as a whole appear as un-Algonquian. Indeed hitherto there has been a decided tendency to regard Blackfoot vocabularly as largely alien. I therefore state that nevertheless the amount of Blackfoot vocabulary that can be shown to be of Algonquian origin is much greater than supposed (I have several hundred etymologies which I think are certain), even if it is extremely difficult to enunciate phonetic shifts which "work" consistently. Proto-Algonquian **t*, **ht*, **nt* become *st* after *i* when derived from **i*, **ē*, **u*. Thus, Proto-Algonquian **ickutāwi* "fire", Cree *iskutēw*, Menomini *iskōtāw*, Ojibwa *ickudä*, Fox *a'kutāwi*, Cheyenne *ho'i'st*^{a}, Blackfoot *istsi'u* (the syllable **ski* for **cku* has been lost by haplology); Proto-Algonquian **-htāwakä-* "ear", Cree *-htāwagē-*, Ojibwa *-'tāwagä-*, Blackfoot *-stoki-* (after *i*; otherwise *-xtoki-*; exceptions are only apparent, e. g., *a'ipustokiakiu* "he raises the ears" has the common initial *a'i*; *pu* is for Proto-Algonquian **umpi* "up", Ojibwa *umbi-*, Cheyenne *hɛhpi-* [with the specialized meaning "beyond"], Cree *uhpi-*, Fox *upi-*); Proto-Algonquian **mekuntākani* "somebody's throat", Cheyenne *maistō'*^{u}, Cree *miguhtāgani*, Kickapoo *ugutāgani* "his, her throat" (Jones), Menomini *ukō'htakan*, Ojibwa *niñgundāgan* "my throat", Blackfoot *moxksistu'na*; **-kuntākanä-* "throat", Ojibwa *-gundāganä-*, Blackfoot *-ksistun(i)-*; Proto-Algonquian **pēnt-* "within", Ojibwa *pīnd-*, Menomini *pēht-*, Cree *pīht-*, Fox *pīt-*, Blackfoot *itsi'pistaupiu* "he sits within" (as if we had **pēntapiwa*, Fox **pītapīwa*; correspondents to **api* "sit" occur in many Algonquian languages), cf. Blackfoot *ipist-*, *ipst* "into"; a variant *-o'piu* for *-aupiu* is common. Per contra note Proto-Algonquian **ne-t-* "I," Fox *net-*, etc., Blackfoot *nit-*; Blackfoot *moxto'kis* "somebody's ear" (with the common terminal *s* of bodily parts), cf. Fox *utāwagaiyi* "his, her ear" (with analogical *t* if correct), Cheyenne *^{na}htovō^{uts}*, "my ear", Cree *mihtāwagai* "somebody's ear" derived from **uhtāwakāyi*, **nehtāwakāyi*, **mehtāwakāyi* respectively; Menomini *uhtāwɅkɅn* "his, her ears" postulates **uhtāwakalɪ*, Ojibwa *ni'tāwag* **nehtāwaki* (on the whole it seems as if these last were made analogically to match the substantival **-htāwakä-*; the *ki* of Blackfoot *moxto'kis* surely is analogical and comes from the plural *moxto'kists* which is derived from **mehtāwakalɪ*, an old though presumably not original form); Proto-Algonquian **metōntani* "somebody's heel", Cheyenne *^{ma}h^{t}sist^{u}* (the weak glottalization of *ts* may be accidental), Ojibwa *nindōndan* "my heel" (restored from Baraga), Blackfoot *motoxtu'ni* [the *ō* in Ojibwa *nindōndan* is restored on the basis of the variants given by Baraga; also Montagnais *tūtĭn* "talon", given by Lemoine, supports **ō* in the archetype as well as the Ojibwa word]. — Proto-Algonquian **l* becomes *t*. Thus, Proto-Algonquian **melōxkamī-* "spring" (the season), Cree *miyōskamī-*, Ojibwa *minō'kamī-*, Fox *menō'kamī-*, Blackfoot *moto'*. For the change of this *t* to *ts* observe Proto-Algonquian **melɪ* "matter, pus", Cree *miyi*, Ojibwa *mini*, Cheyenne *ima'tsiv*^{i} "it festers", derived from **u*+**melɪwi*, Blackfoot *matsisi'u* "pus"; Proto-Algonquian **melwi-* "fine, beautiful, etc.", Fox *menwi-*, Cree *miywi-*, Cheyenne *masi-*, Blackfoot *matsiu-* (*matsi-* etc.) "fine". For the change of this *t* to *st* after *i* note Proto-Algonquian **mexkātalɪ* "somebody's legs," **uxkātalɪ* "his, her legs", Ojibwa *mi'kādan*, Fox *u'kātani* (see above for the difference in meaning), Blackfoot *moxka'tsists*, *oxka'tsists*.[1] Sometimes in the posterior portion of a stem, etc. original **l* seems to be lost under unknown conditions and then the stem generalized; but it may be a morphological difference: at any rate there are parallels in Blackfoot, e. g. **-nt-* occasionally behaves the same way. So, for example, a stem **melā-* "smell" is postulated by Fox, Ojibwa, Cree, Cheyenne, etc., but in Blackfoot there is no trace of the terminal **lā*. (Note also *-*myā-* "smell".)

[1] For another example of this sort note Blackfoot *oa'u* "egg," *oa'ists* "eggs," Algonkin *wāw* "egg," *wāwan* "eggs"; the archetypes are **wāwi*, **wāwalɪ*.

— History of **θ*. There are but few certain examples showing the correspondence. These indicate *t* is the normal representative. Blackfoot *it-*[1] "then, there," Cree *it-*, Fox *in-* postulate Proto-Algonquian **iθ-* (**-eθ-*). The common instrumental *t* in Blackfoot (which has become a mere transitivizing suffix) "goes" with both animate and inanimate object, quite parallel to Cree *-t- -t-*, goes back to **-θ- *-t-* respectively as shown by the testimony of most Central Algonquian languages; owing to the merging of **θ* and **t* in Cree and Blackfoot it superficially appears as if these languages violated Algonquian usage. Thus, *nitsini'skapatau* "I pull him down" *(ini'skapatsiu* "he pulls him down" shows *ts* for *t* owing to the following, *i*, earlier **ä)*, *nitsini'skapatoxp* "I pull it down", *ni'tsaiskapatau* "I pull him out", *ni'tsaiskapatoxp* "I pull it out." [Obviously *ini-* "down" is to be connected with Proto-Algonquian **nēhθ-* (Cree *nīhtinam*, Fox *nī'senamwa* postulate **nētenamwa* "he, she lowers it") which requires a doublet **nēhci-* (Cree *nīhtci-* is analogical as I have shown in the Internat. J. Amer. Linguistics, VIII, pp. 41, 42; we may therefore assume that **-hθ- *-hci-* are to be added to the "post-verbal extensions" of which I have spoken on sundry occasions; note also Cree *nīhtcipitēw* "he pulls him down", *nīhtcipitam* "he pulls it down", *mōskipitēw* "he pulls him out", *mōskipitam* "he pulls it out"; it seems natural to connect the posterior portions of these words with those of the Blackfoot words cited; to judge from Baraga, Ojibwa has *-bi-n-*, *-bi-dō-*; what the *ska* of the Blackfoot words (which appears also in *a'istapiskapatsiu* "he pulls him off") then is, I do not know. For Blackfoot *ini-* "down" note also *nitsi'ni'piau* "I take him down", *i'ni'piu* "he takes him down" (*nits-* is phonetic for **net-*) with which doubtless Fox *nepyänāwa* "I bring him, her", *pyänäwa* "he, she brings him, her" are related even of the phonetic correspondence is not wholly clear.]

[1] *ist-* apparently under some circumstances.

Blackfoot *imita'(ua)* "dog" shows metathesis (see Sapir, American Anthropologist, N. S., 15, pp. 624, 630) and is a reflex of Proto-Algonquian **aθemwa*, Kickapoo **anemwa*, Cree *atim*, etc. A few novel cases of metathesis may be recorded here: *inok-* "long", Fox *kenwi-*, etc.; *spi'ksiu* "he, she is thick", Cree *kispagisiw*; *skak-* "ability", Fox *ka'cki-*, etc.; *ni''msa* "my daughter-in-law", Proto-Algonquian **ne'θemya*, Fox *ne'semya*, Ojibwa *nisim*, Cree *nistim* (with extended meaning), etc. (for the phonology cf. *ni'sa* "my older brother", derived from **ne'θ-*, Fox *ne'se'sä'a*, Cree *nistēs*, Menomini *ne'näh* [vocative; for **ne'θehse*]); **meketekwa* "somebody's knee", **meketekwi* "somebody's knee", Cree *mikitik* (both Lacombe and Watkins; presumably *migitig*; the inan. pl. *mitikwa* is given by both authorities), Ojibwa *ningidig*, *kigidig*, *ogidigwan* "my knee", "thy knee", "his knee" (from Baraga), Blackfoot *motoksis* (animate; with the characteristic terminal *s* of bodily parts in Blackfoot, which is presumably analogical in origin). The last example shows the effect of *m* and subsequent vocalic assimilation. A few more illustrative examples may be cited: Proto-Algonquian **mectekwāni* "somebody's head", Cree *mistigwān*, Ojibwa *nictigwān* "my head", Blackfoot *motokâni*; Proto-Algonquian **meθcentcɪ* "somebody's hand", Cree *mitcihtci*, Blackfoot *motsi's* (cf. Ojibwa *niñgi'tcinindj* "my right hand"; Proto-Algonquian **-θcentcyä-* "hand" is demanded by the requirements of Cree *-tcihtcē-*, Fox *-ne^{a}tcä-*, Menomini *-nähtsɪ-*; so **meθcentcyi* would be expected, but as is known, after consonants *yi* has already become *ɪ* in Proto-Algonquian times); Proto-Algonquian **mehkwäkani* "somebody's neck", Kickapoo (Jones) *u'kwägăn̨i* "his, her neck", Menomini *uhkīkanih* "on his neck", derived from **uhkwäkaneñki* (presupposing knowledge of the phonetic shifts already established for Menomini; as can be seen from the works of Baraga and Lemoine there are Ojibwa and Algonkin exact correspondents to the word in question; cf. also Cree *-hkwē-* "neck"), Black-

foot *moxkoki'ni*: note also Blackfoot *spi'nomoyiu* "he lifts it for him", *ni'tspinomoau* "I lift it for him", derived from **icpenamawäwa* and **netecpenamawäwa* respectively (Cf. Cree *isp-*, Ojibwa *icp-*; knowledge of the ordinary facts of Algonquian linguistics is presupposed); Blackfoot *po'tok* "bring ye it", Fox *pyätōgu* "bring ye it"; less obvious is Blackfoot *o'pi* "brain": it is based upon **utempi* "his, her brain", Cree *utihpi*, Kickapoo *utepi* (no other archetype can satisfactorily account for these two words); that **utempi* is to be analyzed as **u*+**tempi* is shown by the substantival **-tempä-* which is well attested; popularly however it was analyzed as **ut-empi* though the **t* was not the "intercalated" *t*: which caused a new substantival **-empä-* (Blackfoot *-opi-*); **empi* developed into *o'pi* retaining *p* (not changing to *ps*) under the influence of the substantival where *p* would be retained (*i* from **ä* does not make *p* become *ps*). It may be added that Blackfoot *o'tòki* "kidney" belongs here, but its history is too complicated to be give. The exact formulations of these shifts can not yet be given with any degree of certainty, but *kamo'sini* "theft" which obviously is related to Cree *kimōtiwin (*kemōteweni)* shows that these shifts must be decidedly circumscribed; and observe *kimmat-*, *kimmatsi-* "poor, etc," correspond (with metathesis) to Fox *ketem(i)-* "poor, wretched (but *pomi's* "oil", Cree *pimis* "a small quantity of oil, grease", Fox *pemi* "oil, grease"); note also *matsisi'u* "matter, pus," Cree *miyi*, Ojibwa *mini*, Proto-Algonquian **melι*, etc.

Cheyenne. — For phonetic shifts in Cheyenne see especially Michelson, Science, vol. 76, July 15, 1932, pp. 55, 56; International Journal of American Linguistics, vol. VIII, p. 78; also 28th Ann. Rept. Bur. Amer. Ethn. (which also contains some errors), p. 233; see also Sapir, American Anthropologist, N. S., vol. 15, pp. 538, 539 (besides one proved shift, contains one imperfectly formulated, one surmized shift is regular, and one alleged shift is erroneous; has some sound etymologies, but also some mistaken ones). According to Dr. J. Geary the tonal, accentual system of Cheyenne is more complex than I have indicated. — Proto-Algonquian **e* becomes *a*. Thus, Proto-Algonquian **nepasekwi* "I arise", Fox *nepa'segwi*, Cheyenne *na'ohā'e*; Proto-Algonquian **metesi* "somebody's navel", **utesi* "his, her navel", Cree *mitisi*, Ojibwa *udis*, Cheyenne *hista'e* "navel" (with secondary *st* from **t*); Proto-Algonquian **mexkwāmi* "ice", Cree *miskwāmi*, Ojibwa *mi'kwām* (Proto-Algonquian *e* becomes *i* in both Ojibwa and Cree; in Proto-Algonquian *i* does not exist after an initial consonant), Cheyenne *ma''um^{e}*; Proto-Algonquian **mexpetuni* "somebody's arm", Cree *mispitun*, Cheyenne *ma'a'hts'*; Cheyenne *ima'tsive* "it festers" comes from **u* + **melwi*, cf. Cree *miyiy* "pus", *miyiwiw* "il a de la postume," Algonquin *mini* "pus" (notice that in Cheyenne Proto-Algonquian **ι* causes palatalization, but not in Proto-Algonquian; Proto-Algonquian **l* appears normally as *t* in Cheyenne). — Proto-Algonquian **e* becomes *a* in Cheyenne before *ht*, derived from original **t* as well as original **ht* (and presumably when derived from original *nt*); before *s* derived from original **c* as well as **cw*; before **n* derived from original *n*; before *t* derived from original **t* as well as **θ*; before *si* derived from **lwi*; before *h* derived from original *s*; before *p* derived from original **p*; before *'p* derived from original **xp*; before *'x* derived from original **'c*. Examples are: Cheyenne $^{ma\hbar}$*tamhā* "old woman", Menomini *mitä'muh* "woman", Fox *metemō'a* "old woman" (Ojibwa *mindimōyä* "old woman" has secondary *nd*); Cheyenne $^{na\hbar}$*tovō^{utse}* "my ear" **nehtāwakāyi*, Cheyenne $^{na\hbar}$*tovō^{tutse}* "my ears" **nehtāwakāyalι* (analogical for **-yälι*), Fox *utāwagaiyi* "his ear", Cree *mihtāwagāy* "somebody's ear" (*ht* supported by both Lacombe and Watkins, and one other anthority; also Menomini *uhtā'wakih* "on his ear"; if correct, then Fox *ut-* must either be an error for *u't-*, or analogical), Ojibwa *ni'tāwag* "my ear" (restored from Baraga; medially Baraga's

t demonstrably is *'t* for the most part, though I can not check the present case beyond the support of Lacombe and Watkins, and Menomini noted above; the vowel-quantities are restored on the basis of the variants given by Baraga, and the Algonkin variants given by Lemoine); *nā$_a$'mahto'v^u* "I obey him, her" (as if we had Fox **nepeme'tawāwa* in this sense; extension of **pemi-* in the sense of **pāmi-* (reduplicated **papāmi-*; cf. Ojibwa *nimbabāmi'tawā* "I obey him, her"; cf. the Cree instrumental particles *-ihtaw-* [with animate object], *-iht-* [with inanimate object] "by hearing"); *na'ohaā'm^{mu}* "I examine him, her", Cree *aswēyimēw* "he guards against him, her" (in Cheyenne the so-called intervocalic **t* in verbs is completely wiped out analogically); Cheyenne *na'šivaā'm^{mu}* "I pity him, her", Menomini *as sawā'nimikutua'* "for they were blessed by," Cree *sawēyimēw* "he blesses him, her; has mercy on him, her," Ojibwa (Baraga) *ninjawênima* "I have pity, mercy upon him", *kīcawānimigut* (Jones) "he was pitied by", Proto-Algonquian **necawālemāwa*, **cawālemāwa*; *na'īā'o'v^u* "I fit him" (in English idiom, "it fits me"), Cree *tēpiskawēw* "he fits him" (in English idiom, "it fits him"), Proto-Algonquian **netäpeckawāwa*, **täpeckawāwa*; *$^{ma^h}$ta'tamō'^{u}* "somebody's shoulder", *$^{ma^h}$ta'tamōn$^{nuts^c}$* "somebody's shoulders", Proto-Algonquian **meteθemañkani*, **meteθemañkanalı*, Ojibwa *nindinimañgan* "my shoulder", Algonkin (Lemoine) *otinimangan* "his shoulder"; compare Cree *mititiman* "somebody's shoulder", **meteθemani*, which form is indirectly supported by Ojibwa (Baraga) *nindinigan* "my shoulder-blade"; *naŵan^{ns}* "I drink", Fox *nemenu*, Proto-Algonquian **nemeno*; *na'pîn^{nu}* "I crush, grind him, her", *napî'n^{na}* "I crush, grind it", Cree *pōskunēw* "il le crève avec la main," Fox *pō'kunā'sa* "he might break it", Proto-Algonquian **nepōxkunāwa*, **pōxkunāwa*; a form **nepōxkunäni* is also demanded by Cheyenne (the etymology given by Sapir, loc. cit., Cheyenne *na-peena* "I grind it" [from Petter], Cree *pini-pu-ttaw* "he grinds it" [from Lacombe] violates Cheyenne phonetic shifts and Algonquian morphology); Proto-Algonquian **meθe'ciwaya* "somebody's testicle", **neθe'ciwaya* "my testicle", Menomini *ninā'siway*, Cree *nitisiway*, Fox *nene'cīwa*, Arapaho *beθā's* (pl. *beθāsi'nǫ*), Cheyenne *mata'xi'v$^{uts^c}$* (pl. *mata'xivu't^u*); *na'histuma'n^{nu}* "I hinder him, her", Fox *utami-* "hinder" (with *-e'si-* copula, "be busy"), Cree *uhtamihēw* "he, she hinders him, her", Ojibwa *undami-* (with a variety of meanings, among them "hinder"), Proto-Algonquian **netuntamenāwa* (the intercalated **-t-* is regularly analogically wiped out in Cheyenne; **u* becomes *i*; original **-nt-* and **-t-* in Cheyenne become *-st-* when preceeded by *i*, whether this *i* is original or not), **untamihāwa*; *na'vihpan^{na}* "I hollow it", Proto-Algonquian **newēmpenäni*, Ojibwa *wīmb-* "hollow", Cree *wīhp-*, Fox instrumental particles *-en- -en-*, Ojibwa *-in- -in-*, Cree *-in- -in-*, Proto-Algonquian **-en- *-en-*; *iīamiyuht^a* "he has a stubby leg" obviously has a cognate in Cree *timigātēw* (restored from Lacombe's *timikâtew*) "he has short legs", but owing to the fact that original **t* and **θ* merge into *t* in both Cree and Cheyenne it is not possible to be positive whether **u*+*temikātä*, **temikātäwa*, or **u*+*θemikātä*, **θemikātäwa* are the archetypes till a cognate[1] in some other language is found for the prior member of the compound, for Cree *tcimigātēw* (Watkins *chimigatão*) is obvious a young dialectic form of *timigātēw:* note also *-gātcē-* (Watkins *-gachā-*) beside *-gātē-*, and Cheyenne *it-* in this case proves nothing (ordinarily it would be decisive) becomes it may easily be analogical; for the posterior element cf. Cheyenne *i'momi''šiyuht^a* "he, she has hairy legs" **u*+*māmē'cikātä*, Fox *-gātä-*, etc.; the treatment of original **k* is complex in Cheyenne; see below); *nahōista'n^{nu}* "I put him out"; Proto-Algonquian **nesākitenāwa*, Ojibwa *ninsâgidina* "I carry him out of doors" (Baraga;

[1] But since **temi-* means "deep", **θemi-* "stubby" is more plausible.

though the exact phonetic restoration is a little uncertain, this does not affect the Proto-Algonquian archetype; I do not know if a Fox **neˈsāgitenāwa* exists which it may not idiomatically, even if the structure is justifiable); *naˈšohpōmᵐᵘ* "I see through him, her", Proto-Algonquian **necāpwāpamāwa*, Cree *sābwāpamēw* "il le voit a travers quelque chose," Fox *cāpw(i)-* "through", *-āpamōwa* "he, she sees (looks at) him, her" (I do not know if they can combine; to judge from Baraga, the Ojibwa correspondents can); *nāₐˈtasᵘ* "I accidentally cut him, her", Fox *nepeˈteˈcwāwa*, Proto-Algonquian **nepeˈtecwāwa*; *nāₐtax* "I accidentally cut it", Fox *nepeˈteˈca*, Proto-Algonquian **nepeˈtec-*; *namāˈsitstoˈvᵘ* "I act pleasantly towards him, her" (a Cheyenne recomposition; otherwise we would have **namāˈsistsoˈvᵘ*), Fox *nemenwitōtawāwa*, Cree *miyutōtawēw* "il lui fait du bien", Proto-Algonquian **memelwitōtawāwa*; a recomposition for **melι*, as Bloomfield showed years ago (original **ō* normally becomes *i* in Cheyenne which in this case is syncopated but the phonetic effect on the following original *t* is shown; original **li* becomes *tsi* in Cheyenne; apparently original **-lwi-* became **-li-*, then **-ci-* [following the treatment of Proto-Algonquian **li* which became **ci* in prehistoric times], then *si-*; later original **l* became *t*; secondary **ti* shifted to *tsi* [original **ti* became **tci* in Proto-Algonquian times]); *namaˈhtataˈmᵐᵘ* "I deem him, her agreeable", Fox *nemenwänemāwa*, Cree *miywēyimēw* (he, she — him, her), Proto-Algonquian **nemelwälemāwa*; *eˈyahahtᵃ* "he, she listens to it", Proto-Algonquian **u* + **pesent-*, Fox *peˈsetamwa* "he listens to it", Ojibwa *ninpisindân* (Baraga) "I listen to it"; *nitamᵐᵉ* "my sister-in-law" (male speaker), "my brother-in-law" (female speaker), Proto-Algonquian **nēθemwa*, Fox *nīnemwa*, Ojibwa *nīnim*, Menomini *wēnimun* "his sister-in-law, brother-in-law (Fox *uwīnemōni*, Proto-Algonquian **uwēθemōlι*), Cree *nītim*; *nahohtaˈmᵐᵘ* "I overtake him, her", Proto-Algonquian **netatemāwa* (intercalated **-t-* in verbs in Cheyenne is wiped out analogically), Ojibwa *nindadimā* "I overtake him, her", Cree *atimēw* "he comes up to him" (*nahoˈhtamiˈstᵃ* "I overtake it" is an analogical extension; in Algonkin and Cree the same thing happens); *maˈtāˈˈᵉ* "timber, forest", probably Proto-Algonquian **meˈtekōki* "trees", Ojibwa *miˈtigōg*, Menomini *meˈtekwak* (with analogical *-wak* for **-ōk*; the word is inanimate in some languages, e. g., Fox *meˈtegōni* = **meˈtekōlι*); *nañįˈru* "I suckle him, her", Proto-Algonquian **nenōnlāwa*, *naˈnįhᵃ* "she nursed me", Proto-Algonquian **nenōnlekwa*, Fox *nōnäwa*, Cree *nōhēw*, Menomini *nōhnew*, Proto-Algonquian **nōnläwa* "she suckles him" (presupposes knowledge of Proto-Algonquian phonology; Cheyenne *nišihᵃ* "nurse thou him", and Menomini *nōhsin* demand an archetype **nōnci*; Algonkin *nōj* is obviously a late analogical product; **nl* becomes *h* or *r* according to the adjacent sounds). I find that I have been pretty consistent in the use of *a* and *ɑ*. Anyhow, these examples are enough to show that Sapir's surmise that *e (i)* sometimes becomes *a* in Cheyenne (though in his opinion not the regular correspondent; see below) can be substantiated to the extent that it is clear that the change of *e* to an *a*-vowel must be the regular shift. I am at present unable to formulate the exact conditions governing the shifts of secondary terminal **e*, and can only say it may appear as *a'*, *ɑ*, *ᵃ*, *ā'ᵉ* (with high tone; all long vowels in Cheyenne have high tone, and are invariably the result of secondary changes, for in Cheyenne all original long vowels are regularly shortened) or may be lost. Examples follow: *hiˈna'* "goose", from **unexka* (Fox *aneˈka*), cf. Cree *niska*, Ojibwa *niˈka*, Arapaho *ne''* "goose, brant, crane", derived from Proto-Algonquian **nexka* (I do not know the rationale of such doublets but they are well-known doublets), *histaˈᵉ* "navel", Ojibwa *udis*, Cree *mitisi*, Proto-Algonquian **utesi*, **metesi* (**u* becomes *i* in Cheyenne; *st* is secondary for **t*); *naˈnįha*, **nenōnlekwa* "she suckles me", Fox *nenōnegwa*; cf. Cree *nōhēw*

"she suckles him, her" derived from **nōnläwa* (as this has already been proved I do not need to prove it here); *naūiha* "he mentions me", Proto-Algonquian **newēnlekwa*, cf. Cree *wīhēw* "he names him", Menomini *wēhnew* "he names him", both derived from Proto-Algonquian **wēnläwa*; Proto-Algonquian *ne'lehku* "kill ye him" (with **'l* as shown Eastern Algonquian languages and Delaware, not **'θ* as given by Bloomfield; **'θ* and **'l* are merged in Fox, Ojibwa, Menomini, Cheyenne and Arapaho yielding *'s, s, 'n, 'h* [secondarily *'ʏ*], *s* respectively), Fox *nese'ku*, Cheyenne *na''ha* (*na''xi̯ya* "kill thou him" is based on Proto-Algonquian **ne'ci*, Fox *ne'ci*); *navōma* "he looks at me", Proto-Algonquian **newāpamekwa*, Fox *newâpamegwa*; *nai''ʏᵃ* "he fears me", Proto-Algonquian **neku'θekwa*, Fox *neku'segwa*, Cree *nikustig*; *namaiĭᵃ* "he barks at me," Proto-Algonquian **nemekiθekwa*, cf. Cree *migitēw* "he, she barks at him, her" derived from **mekiθäwa*, Ojibwa *umiginān* "he, she barks at him her", derived from **u+*mekiθā-*; *nāₐ'mahto'vᵘ* "he, she obeys (listens to) me", derived from **nepemehtawekwa*: see above, but this is analogical for **-htākwa* (which line of reascning again presupposes knowledge of what has already been proved); *ma'e'xᵃ* "somebody's eye", Proto-Algonquian **meckēncekwi*, Cree *miskīsig*, Ojibwa *nickīnjig* "my eye", Arapaho *beēī'se'ᵉ*; *ma'u'htᵃ* "somebody's forehead", Proto-Algonquian **mexkāhtekwi*, Cree *miskāhtig*, cf. Algonkin *uckāhtiguñg* "on his, her forehead" which is derived from **uckāhtekuñki* (knowledge of the ordinary shifts is presupposed; but I add that the conversion of **t* to **tc* before original *i* in Proto-Algonquian times shows at once that *i* in the Cree and Algonkin words is secondary), which in turn presupposes **uckāhtekwi* for the general case; the Cree substantival *-skāhtigwä-* confirms this; Kickapoo *u'keci* [Jones] clearly is unrelated); *hō'mᵐᵃ* "on the other side of the river", Proto-Algonquian **akāmeñki*, Ojibwa *agāmiñg*, Cree *agāmihk*, cf. Fox *agāmä'egi*; *vi'ĭᵃ* "fat", Proto-Algonquian **wēlenwi*, Cree *wīyin*, Fox *wīnenwi*, Arapaho *nīne'n*; *naohā'ᵉ* "I arise", Proto-Algonquian **nepasekwi*, Fox *nepa'segwi*; *i'māᵉ* "he barks", derived from **u+*meki*, cf. Ojibwa *migi* "he, she barks", derived from **mekiwa* (final **wa* is regularly lost after *i* in Ojibwa; Proto-Algonquian **e* becomes *i*; Proto-Algonquian **i* does not occur after an initial consonant; so **me-* is certain; **ki*, rather than **ke*, is given in accordance with the general principles of Algonquian languages); *i'xāᵉ* "he, she urinates", derived from **u+*ceki*, cf. Fox *cegīwa*, Menomini *sekēw*, both derived from **cekiwa*, as is Cree *sigiw* (*sikiw* in Bloomfield's transcription); *i'vōmāᵉ* "he is seen by", derived from **u+*wāpameku* (? or something like it), cf. Fox *wâpamegwa*, derived from **wāpamekwa*; *namaitāᵉ* "they bark at me", apparently derived from **nemekiθekōki* (knowledge of ordinary Algonquian considerations are presupposed; cf. *namaitᵃ* "he barks at me", derived from **nemekiθekwa*: see above). Presumably the quantities and qualities of the vowels of the preceding syllables, the nature of the preceding consonant, the tempo, and rhetorical lengthening in part are responsible for the varying treatment. — An example showing the loss of secondary final **e* is *iš'ᵉ* "day", Proto-Algonquian **kēcekwi*, Fox *ki'cegwi*, Cree *kīsig*, both meaning "sky." — According to Sapir Proto-Algonquian *e* (or rather *I* in his scheme) becomes *o* in Cheyenne, at least in part. But he uses this as a regular shift. So he explains Petter's *hohona* "stone" as the equivalent of Fox *a'seni*, etc., considering the second *o* as the reflex of *e (I)* and the first *o* as being assimilated from *a*, and *-na* for **-ni*. From the evidence of Menomini *a'sen* we know today the archetypes are **a'senya*, **a'seni* (or rather, **a'senɪ* if not levelled analogically in early times), for the word in some languages is animate, in some inanimate. I have recorded Cheyenne *ho'ho'nā''ᵉ*, which is a presumable error for **ho'honā''ᵉ*[1]. This phonetically can not come

[1] It is not an error. June 1934. Do we have reduplication ?

from either archetype, for original **-nya* as well as **-ni (*-nɪ)* would be lost (Cheyenne *vi'n^{ne}* "marrow" is practically an accented monosyllable, Proto-Algonquian **wēni*, Cree *wīni*, Natick *ween*, etc. and hence has unusual treatment). However, I believe it belongs indirectly with the group, but since the normal correspondents to Proto-Algonquian *a* in Cheyenne are *o* and *u* (under different conditions), and since (as I have shown above), *a*, *ą* are the regular correspondents to **e*, it is obvious that we have vowel-assimilation working in a direction opposite that imagined by Sapir. Baraga gives an Ojibwa word *assinins* "pebble". If we can rely upon the vowel-quantities given by Baraga (we can not always) an archetype **a'senensa* is justifiable, and the Cheyenne word perhaps comes from this. But Watkins gives Cree *usinnes*. If we can rely upon his orthography (we can not always, particularly *e* is occasionally wrong for *i*) *asinīs* would have to be restored which would demand **a'senēnsa* from which the Cheyenne word in question can not be derived. I know of but two other cases where **e* apparently becomes *o* (or rather *u*). The word for "thunder-bird" in Cheyenne *nunu'ma'*. But I have previously pointed out that Fox *neneme'kīwa*, Ojibwa *animi'ki* (pl. *animi'kīg*), Menomini *inä'mehkiwʌk* (plural) can not come from one archetype: **nenemexkiwa*, **anemexkiwa*, **inemexkiwa* are presupposed[1]. Hence this word should hardly be used to establish a general shift. It may be pointed out that though strictly **nanamexkiwa* is postulated by the Cheyenne word, it is not impossible that **nanemexkiwa* with subsequent vocalic assimilation, is out of the question. But no stress should be laid on this[2]. Cheyenne *nu'tu'm^{mi}* "first" obviously corresponds to Ojibwa *ni'tam* "first", derived from an archetype **ne'tami*. The first *u* obviously is a vocalic assimilation of *a* = **e*. Summing up we may say that where *o* or *u* stands for original *e* it is caused by assimilation, and can not be used to bolster up a general rule.

An *i*-vowel, irrespective of source, converts an immediately following original **t* and **nt* to *st*; so does the Cheyenne diphtong *ai* when derived from **-eku-* or **-epē-*, but not from **-esē-*; analogical levelling occurs in some cases. Examples are *nahōista'n^{nu}* "I put him out", derived from **nesākitenāwa*, Ojibwa (Baraga) *ninsâgidina*, Fox *sāgit-*, *sāgi^{d}tci* (the instrumental particles *-en- -en-* are common enough in Fox but I do not know if they can combine with *sāgit-*, with which they should theoretically); Cheyenne *mo'i'i'mis$^{tuts^{c}}$* "big bag of grass", derived from **mackimutāyi*, Fox *mackimutä'i*, Cree *maskimut*, Ojibwa *mackimud*; Proto-Algonquian **ickutäwi* "fire", Cree *iskutēw*, Fox *ackutäwi* (with secondary *a-* for *i-*; as I have pointed out previously [IJAL VIII, pp. 43, 44] initial *i* sometimes appears as *a* in Fox, though the conditions are ill defined), Menomini *iskō'täw*, Ojibwa *ickudä*, Arapaho *hisi'tä*, Cheyenne *ho'i'st^{a}* (**ickutäwi* became **ackutäwi* with vocalic assimilation; from **ackutäwi* the Cheyenne word is derived without difficulty); Proto-Algonquian **metesi* "somebody's navel", **utesi* "his, her navel", Cree *mitisi*, Ojibwa *udis*, Cheyenne *hi'sta'^{e}* "navel" (not "his, her navel"); Proto-Algonquian **utähi* "his, her heart", Cree *utēh*, Fox *utä'i*, Ojibwa *udä*, Cheyenne *hi'st^{a}* "heart"; Proto-Algonquian **newētapimāwa* "I sit with him, her", **wētapimāwa* "he, she sits with him, her", Cree *wītapimēw*, Ojibwa *wādabimād* "he, she who sits with him, her", Cheyenne *na'vistōm^{mu}*; *na'hohtami'st^{a}* "I overtake it", based upon **netatemintāni* (this is an analogical extension; Cree and Algonkin have some forms also based on **atemi-*; but Cree *atimēw* "he, she comes up to him", Algonkin *atim* "reach him", Ojibwa *nindadimā* "I overtake him, her", *nindadindān* "I overtake it," Cheyenne *nahohta'm^{mu}*

[1] And Cree *unimiskiwag* "thunder-birds" requires **unemexkiwaki*.

[2] I am inclined to believe that **nenemexkiwa* is the primary archetype, and that the other archetypes are dissimilations of this; initial *e* would be replaced by *i*.

"I overtake him, her" show positively that the Proto-Algonquian archetypes were **ate-m-* with animate object, **ate-nt-* with inanimate object); Cheyenne *na'histuma'n*^{nu} "I hinder him, her", based upon **netuntamenāwa* (intercalated **-t-* is regularly wiped out in Cheyenne verbs), though the published Algonkin, Fox, Ojibwa, and Cree material seems to indicate that the instrumental particle **-en-* originally did not go with **untami* (Fox *utami-m-*, *utami-ʿ-* with animate objects; similarly Algonkin and Ojibwa *undam*, Cree *uhtami*); Proto-Algonquian **mekuntākani* "somebody's throat", **ukuntākani* "his, her throat", Cree *miguhtāgan*, Ojibwa *ugundāgan*, Arapaho *bētᵩ* (though hardly recognizable as a cognate, it is an exact correspondent), Cheyenne *maistō'*^{u}; Cheyenne *naištan*^{na} "I make it enter", based upon **nepēntenäni*, cf. Cree *pīhtinam* "he puts it in", Ojibwa *pīnd-* "enter", Fox *pīt-*, Menomini *pīht-*; Proto-Agonquian **utempi* "his, her brain", Kickapoo *utepi*, Cree *utihp*, Cheyenne *hista'hp*^{s} "brain" (not "his, her brain"); Proto-Algonquian **utōntani* "his, her heel", Ojibwa *udōndan*, Cheyenne *histsi'-st*^{u} (original **nt* becomes *ts* before *i* in Cheyenne, irrespective of sources; final **-ni* is regularly lost). Proof that Cheyenne *ai* when derived from Proto-Algonquian **-esē-* does not convert an immediately following **t* to *st* is *naita'o'v*^{u} "I crowd him, her", derived from **nesēnteckawāwa*, cf. Cree *sīhtiskawēw* "he presses upon him", **sēnteckawēwa*, Ojibwa *sīnd-*, *sīndji-*, *sīns-* "press upon" (from **sēnt-*, **sēntci-*, **sēns-*; these variations are normal under defined conditions). Analogy and recomposition sometimes operate against the shifts, thus, *eʏāuīa'm*^{ms} "the water is deep"; for Proto-Algonquian **temi* "deep", cf. Cree *timiw* "the water is deep", Ojibwa *dimi* (Baraga), "it is deep" (of a lake, river, etc.). [Proto-Algonquian **temi*, not **timi*, is demanded because, as is well-known, **i* after an initial consonant is unknown in Proto-Algonquian; and original **t* would shift to *tc* before original *i*; **e* and **i* merge into *i* in both Cree and Ojibwa.] Similarly *ita'xiyō'*^{e} "he stands upon", derived from **u*+**tähci-* (a bye-form of **tähθ-*; Cree *tēhtapiw* "he is seated upon", Ojibwa *tessab (nin)*, given by Baraga, "I am sitting on, etc." prove that in this case Cree *ht* is derived from **hθ* and no other combination; analogical forms in Cree, Algonkin, and Ojibwa have disturbed the original distribution of proper forms) +**kāpawi*[1] (or something close to this, cf. the Cree, Fox, Ojibwa correspondents). Proto-Algonquian **k* is kept as such in *na'kahōm*^{mu} "I see him, her close" which is presumably derived from **nekesāpamāwa*; there is connection with Cree *kisewak* "at, by, near", cited by Watkins, *kisiwâk* "proche", cited by Lacombe (*kisiwāk*, Bloomfield); but without an Ojibwa and Menomini correspondent it is impossible to know whether the archetype contains **s*, **hs*, **ns*: the Cheyenne word bars *'s*; for *-ō-* "see" see the section dealing with Proto-Algonquian **p*. Proto-Algonquian **k* appears as *hk* after Cheyenne *u* (derived from **a* and **ā*) if immediately preceeding Cheyenne *u* or ^{u} (derived from **a* or *.*ā*), thus: Proto-Algonquian **uxpwākana* "pipe", Cree *uspwāgan*, Fox *aʿpwāgana*, Ojibwa *uʿpwāgan*, Cheyenne *he'u'hk*^{u}; Cheyenne *ivu'h-k*^{u} "it is crooked", derived from **u*+**wākyā*, Cree *wāgāw*, derived from **wākyāwi* (the known principles of Algonquian word-formation demand these archetypes), Fox *wâgenamwa* "he bends it", derived from **wākenamwa*, etc.; Proto-Algonquian **ulākani* "bowl", Cree *uyāgan*, Fox *anāgani* (with unoriginal initial *a*: see IJAL VIII: 43, 44), Menomini *unākan*, Ojibwa *unāgan* (the Shawnee correspondent presents certain difficulties terminally, not medially), Cheyenne *hiīu'hk*^{u} "dish, vessel;" *ivi'u'hk*^{u} "it is bitter," derived from **u*+**wē'sakyā*, cf. Ojibwa *wīsagā* (postconsonantic **y* is regularly lost in Ojibwa, though original **yä* is reflected by *ī* after consonants, except that after **c* there

[1] This is presumably the ultimate archetype; but probably **-kāpi-* (a new formation) is the immediate archetype.

is no trace of the *y* of *yä*; also in Cheyenne *y* regularly is lost after consonants, but postconsonantic **yä* regularly yields *i*), derived from **wē'sakyäwi*; both these are presumably new formations, cf. Cree *wīsagan* "it is bitter", Algonkin *wīsagan*, Natick *wesogkon*, the Ojibwa doublet *wīsagan* which demand **wē'sakanwi* as the archetype ('*s* proved by Menomini *wē'sakesiw* "he is in pain"; see Bloomfield, Language, I:149).

Proto-Algonquian **k* appears as *h* in *na'hahpa'n*^{na} "I close it", derived from **nekepenäni*, cf. Cree *kip-*, Fox *kep-*, Natick *kuppaham* "he stops, shuts, closes it". Proto-Algonquian **k* becomes *y* after Cheyenne *i* and *e*. Thus, *iĭamiyuht*^{a} "he, she has a stubby leg", derived from **u*+**θemikātä*, cf. Cree *timigātēw*, derived from **θemikātäwa*, Fox *-gātä-* "leg", Ojibwa *-gādā-*, etc.; *imomi''šiyu'ht*^{a} "he, she has hairy legs", derived from **u*+**māmē'cikātä*, cf. Fox *mī'ci-* "hairy", Menomini *mī'si-*, Ojibwa *mīsi-*, etc.; **mā-* is a normal reduplication of **mē-*; Proto-Algonquian **nemēkāθäwa* "I fight with him", Fox *nemīgānāwa*, Cheyenne *na'mīyut*^{u}; cf. Algonkin *mīgāc* "fight him", derived from **mēkāci*, Natick *mekonau* "he fights with him", derived from **mēkāθäwa*; *imi'iyō'*^{e} "he, she stands exposed", derived from **u*+**mōxkē*+**kāpi*, cf. Fox *mō'kī-* (the original meaning is seen in the combination with the *-en-*instrumental, *mō'ken-* "expose"); I have not material enough to determine whether Ojibwa has generalized a stem *mō'ki-* from the combination *mō'kin-* where the *i* is historically justifiable, or whether *mō'kī-* occurs; Cree *mōskinam* "he uncovers it", derived from **mōxenamwa*; Cree *mōskīstawēw* "he rushes upon him" corresponds exactly to Fox *mō'kī'tawäwa* and both come from a Proto-Algonquian archetype **mōxkē'tawäwa*; if this belongs here terminal **ē* is guaranteed; but if it does not, then **mōxki*+**kāpi* should be given above; notice that Proto-Algonquian **mōcki-* "fill" (demanded by Fox *mō'cki-*, Ojibwa *mōcki-*) naturally occurs as *mōski-* in Cree; which accounts for the various disparate meanings of Cree *mōski-*; **-kāpi-* "stand" alone will account for Cheyenne *-yō'*^{e}; this is clearly a secondary formation, for a Proto-Algonquian archetype **-kāpawi-* is demanded by Cree, Menomini, and Ojibwa; Fox *-gāpā-* is unclear; however a partial parallel exist in **wāpi-*, **wāpa-* "see, look at"; note also *iĭa'xiyō'*^{e} "he stands upon", derived from **u*+*tähcikāpi*; **tähci-* is a doublet of **tähθ-* according to recognized principles of Algonquian linguistics; **tāhθ-* is demanded by Ojibwa *täs-*, Cree *tēht-*: new formations occur commonly in Cree, etc. which need not be discussed here; Cheyenne *e'yo'*^{u} "it is dry", derived from **u-*+**kāhkyä*, cf. Fox *kā'ke'samwa* "he dries it", derived from **kāhkesamwa*. Initial **k* is lost before **ē*, thus, Proto-Algonquian **kēθemwa* "thy brother-in-law" (female speaker), "thy sister-in-law" (male speaker), Cree *kītim*, Fox *kīnemwa*, Menomini *wē'nimun* (Bloomfield's Texts at 512) "his sister-in-law", derived from **uwēθemōlı* (Fox *uwīnemōni*), Ojibwa *kīnim*, etc., Cheyenne *i'ĭam*^{me}; Proto-Algonquian **kēcekwi*, "sky, day", Fox *kī'cegwi*, Cheyenne *i'š*^{e}. Medial **k* is lost in the combinations **-aki-*, *-**akō-*, **-āki-*, **-ekē-*, but contraction does not take place. Thus, Proto-Algonquian **netakimāwaki* "I count them (an.)", Cree *nitagimāwag*, Ojibwa *nindagimāg*, Cheyenne *na'hōimō''*^{u} (intercalated **-t-* in verbal forms is wholly wiped out analogically in Cheyenne); Cheyenne *i'rōis'* "he, she is hanging", derived from **u*+**akōtcine* (intercalated **-t-* is analogically wiped out in Cheyenne verbal forms; final **-ne*, not *-n* in accordance with the general considerations of Algonquian linguistics), *i'rōi'st*^{a} "it is hanging", derived from **u*+**akōtä*; Cheynne *r* is a variant of *h* after *i*; cf. Cree *agōtcin* "he, she is hanging", Fox *agō*^{d}*tcinwa*, "he, she is hanging", *agōtäwi* "it is hanging", Ojibwa *agōdjin*, *agōdä*, Proto-Algonquian archetypes **akōtcinwa*, **akōtäwi* (the Cree inanimate has replaced the old auxiliary with a new-formation; Proto-Algonquian **akōθäwa* "he, she hangs him, her", Cree *agōtēw*, Fox *agōnäwa*);

notice that Cheyenne *i'ʏo'i'st*^{a} "he approaches howling' (a word of uncertain etymology) is distinguished from *i'ʏōi'st*^{a} by a short *o* and a strong glottal stop; Cheyenne *nahōista'n*^{nu} "I put him, her out", derived from **nesākitenāwa*, Ojibwa *ninsâgidina* (Baraga) "I carry him out, I turn him out", Cree *sāgihtin* "it sprouts", derived from **sākihθenwi* (proved by the animate *sāgisin*, derived from **sākihcinwa*), Fox *sāgi*^{d}*tci* "outside", Proto-Algonquian **nekēwä* "I return", Fox *nekīwe*, Cheyenne *nāiv*^{ha} (Cree *kīwēw* "he, she returns", Fox *kīwäwa*; the archetype is **kēwäwa*); Cheyenne *nāi's*^{u} "I cut him, her", derived from **nekēckecwāwa*, cf. Cree *kīskiswēw* "he cuts him off", derived from **kēckecwāwa*; the contrast with Cheyenne *naimōm*^{mu} "I see him, her secretly", **nekēmāpamāwa*, indicates that contraction of **-ewē-* to *-ai-* is conditioned upon the loss of an intervocalic **-p-* in the next syllable.

It is not easy to formulate with precision the shifts of **k* when in original final syllables. Thus some Algonquian languages have a vocative plural which demand *-tike* (Fox), others *-tuke* (Ojibwa), others both, according to the dialect (Cree). Since *ɪ* and *u* fall together in Cheyenne it is uncertain how to interpret *hiīani's*$^{ts\langle}$ "men": (**ilenītuke?* **ilenītike?*). The contrast *i'ȣ*$^{\langle}$ "sky", derived from **kēcekwi* (Fox *kī'cegwa*, etc.), *ma'e'x*^{a} "somebody's eye", derived from **meckēncekwi* (Ojibwa *nickīnjig* "my eye", Natick *muskēsuk*, Shawnee [Gatschet] *huskisegwi* "his, her eye", Kickapoo [Jones] *uskīcegwi*), *na'ohā'*^{s} "I arise", derived from **nepasekwi* (Fox *nepa'segwi*) is presumably due to different conditions in the archetypes and reflexes. In verbs **ne–*kwa* is regularly reflected by *na—*^{a} (rhetorically *na—a*), e. g., *na'niḥ*^{a} "she suckles me", **nenōnlekwa* (Fox *nenōnegwa*, cf. Cree *nōhēw* "she suckles him, her", derived from **nōnläwa*). But until the function and history of such passes as *iʏō'mā'*^{s} "he, she is seen" (**u*+*wāpame-*) is clear an exact formulation of the shift must be deferred. So also final **-aki* normally yields *-o'*^{u} but *si'yut*^{u} "corpses" derived from **tcēpayaki* (Fox *tcīpaiyagi*) indicates a different treatment under special conditions; as do a few other Cheyenne words. Anyhow, it seems as if *-o'*^{u} (especially in the form *-i̯yo'*^{u}) had been analogically extended in Cheyenne: which increases our difficulties in enunciating precise shifts. — **k* is lost and contraction takes places in the combinations **-aka-*, **akā-*, **-akā-*, **-āka-*, **-ekē-*, **-eki-*, **-eku-*, **-ɪku-*, *-iku-*, **ukē-*, **uku-*. Thus, Proto-Algonquian **nenakaθāwa* "I abandon him, her", **nakaθäwa* "he, she abandons him, her", Fox *nenaganāwa*, *naganäwa*, Cree *nagaθēw*, Cheyenne *na'ñōt*^{u}; Proto-Algonquian **nepakamāwa* "I strike him, her", Fox *nepagamāwa*, Cheyenne *naō'm*^{mu}; Proto-Algonquian **akāmeñki* "on the other side of water", Cree *agāmihk*, Ojibwa *agāmiñg* (cf. also Fox *agāmä'egi*), Cheyenne *hōm*^{ma}; Proto-Algonquian **nehtāwakāyi* "my ear", **nehtāwakāyaɪ* "my ears", Cree *nihtāwagāy*, Fox *netāwagaiyi* (with analogical *-t-* for **-'t-*; similarly Kickapoo), Menomini *uhtā'wʌkʌn* "his ears", Ojibwa *ni'tāwag* (*t* of Baraga usually means *'t*; Menomini and Ojibwa lack the **y* suffix; so too Natick *me'hta'uog* "somebody's ear"); Cheyenne ^{na}*htovō*$^{tu ts\langle}$ "my ears" (^{na}*htovō*$^{u ts\langle}$ "my ear" apparently has a *u*-glide); Cheyenne $^{na'}$*htatōn*^{nu} "my spine", $^{ma'}$*htatōn*^{nu} "somebody's spine", are clearly animate plurals and are derived presumably from some such archetypes as **netatakākwanaki*, **metatakākwanaki*, the syllable *-ta-* having vocalic assimilation (for **a* normally yields *o*, *u*); but these can scarcely be original, and the animate gender would seem to be due to archetype of "vertebra": cf. Fox *uta'tagägwʌni* "his back-bone", Jones's Fox Texts, 72. 14, 15, 16, Kickapoo (Jones) *tata'kägwani* (pl. *tata'kägwänäni*) "back-bone" (probably **u*+*tatägwani* should be the normal orthography of Fox and Kickapoo), Ojibwa (Baraga) *tatagâgwan*, *nintatagâgwan* "back-bone", "my back-bone", Algonkin (Lemoine) *otatakâkwan* "his spine", *otatakâkoman* "his vertebra" (which

shows the word is animate; *nitatakâkom* "my vertebra" would not show this), Cree (Watkins) *ootutookwakun* "back-bone" (said to be of local usage only; presumably *utatugwāgan*), Montagnais *tŭtŭkuagan*, *tutukuāgăn* "spine" obviously belong here, but seem to have suffered vocalic assimilation; *ito'ō'm*^{m_s} "it is cold water", derived form **u*+**tahkākami*, cf. Fox *ta'kyāwi* "it is cold", Ojibwa *ta'kāgami* "it is cool, cold" [of a liquid], derived from **tahkākamiwi* in accordance with known shifts; Ojibwa *ta'kigami* "cold spring water", Cree *tahkigamiw* "it is cold" (of water) are more remotely related; Cheyenne *hĭtu'hk*^{u} "vessel, dish" (pl. *hĭtu'hku*$^{nu_{ts}}$) derived from **ulākani*, Cree *uyāgan*, Fox *anāgani* (with secondary initial *a*), Menomini *unākan*, Ojibwa *unāgan*, shows a varying treatment owing to the (regular) loss of final *-ni*; *naimō'm*^{m_u} "I see him, her secretly", derived from **nekēmāpamāwa*, Fox *nekīmāpamāwa*, Ojibwa *niñgīmābamā*, cf. Cree *kīmāpamēw* "he, she sees him, her secretly", derived from **kēmāpamāwa*; *naivōvō'*$_{s}$ "I stand looking about", from **nekēwāpikāpi*; Fox, Cree *-āpi-* "look"; the contrast with Cheyenne *nāiv*^{h_a} "I return", derived from **nekēwā*, Fox *nekīwe*, *kīwäwa* "he, she returns", indicates that contraction is conditioned upon the loss of another consonant; Proto-Algonquian **nemekiθekwa* "he, she barks at me", Algonkin *nimiginig*, Cheyenne *naṁait*^{a}, cf. Cree *migitēw* "he, she barks at him, her", derived from **mekiθäwa*, Ojibwa *umiginān* "he, she barks at him her," derived from **umekiθālι* (some known facts are passed over silently); Proto-Algonquian **neku'θekwa* "he, she fears me", Cree *nikustig*, Fox *neku'segwa*, Cheyenne *nai''*^{Ya}; *nai'vain*^{n_s} "he fears us excl." which is derived from **neku'θekunāna*, Fox *neku'segunāna* (final **n*+vowel is regularly lost in Cheyenne); Proto-Algonquian **mekuntākani* "somebody's throat", Cree *miguhtāgan*, Kickapoo (Jones) *ugutāgăni*, Ojibwa *niñgundāgan* "my throat", Cheyenne *maistō'*^{u} (the Cheyenne termination can not be associated with any degree of certainty with the Algonquian archetype, for it may be analogical; this is discussed elsewhere in this paper); Proto-Algonquian **metälιkumi* "somebody's nostril", Cree *mitēyigum*, Algonkin (Cuoq) *nitenikom* "my nostril" (wrongly analyzed by Cuoq as shown by Lemoine's *-tenikome-* in compounds), cf. Ojibwa *-dänigumä-* "nostril", derived from **-tälιkumä-*. Cheyenne $^{ma^h}$*ta'ts'ēm*^{m_s} (the glottalization is very weak and may be accidental) (the Cheyenne word is decisive in reconstructing the archetype; **l* becomes *t* which becomes *ts* before a Cheyenne *i*, *ē* irrespective of source, and before terminal *i* and *ι* which are lost; the Cree and Ojibwa and Algonkin forms could come from **-täle-* which will not account for the Cheyenne form; now since **-täli-* would have changed to **-täci-* in Proto-Algonquian times we must fall back upon **-tälι-*, for **ι* does not cause original preceding **l* to become **c*, and it does cause Cheyenne *t* from **l*, etc. to shift to *ts* when immediately before it; Fox *-gumä-* "nose" is more distantly related); *ēmitsi'hn*^{n_s} "he walks with something concealed," derived from **u*+**kēmōt-* (knowledge that the third person animate singular in Cheyenne verbs is derived from **u-* is presupposed), Cree *kīmōtisiw* "he is secret, he is sly", derived from **kēmōtesiwa*, Fox *kīmōt-* "secret" (strictly a compound in origin), etc.; Cheyenne *-ihn*^{n_s} "walk" is common enough; it is tempting to derive this from **-uhθä-* (Cree *-uhtē-*, Fox *-u'sä*, Men. *-ōhne-*), but there are phonetic difficulties; *nĭya'taxē'n*^{n_i} "he accidentally cut us incl.", based upon **kepe'tecukunāna* (*nĭ-* of course is not a phonetic but an analogical transformation unless of alien origin), cf. Cree *pistiswēw* "he, she cuts him, her by accident", derived from **pe'tecwäwa*, Ojibwa *nimbi'tijudis* "I cut myself accidentally", derived from **nepe'tecutιso*, Menomini *pe'tenam* "he picks it up by mistake", derived from **pe'tenamwa*; *e''simisi* "he, she fears to eat", derived from **u*+**ku'ci*+**mētci*; Cree *kustēw* "he, she fears him, her", Fox *ku'säwa*, Menomini *ko'new* require **ku'θäwa* as the

archetype; now although *-'θ- is really the particle transitivizing the verbal stem, apparently in Proto-Algonquian times *ku'θ- was felt as the stem; and with the connective *-i-, *ku'θ- in accordance with established shifts would become *ku'c-; so *ku'ci- occurred in making verbal compounds (Cree *kusi-*, Ojibwa *kuci-*; at present I can not cite similar forms in other dialects; for the shift cf. Cree *kusi* "fear thou him, her", Fox *ku'ci*, Menomini *ko'sin* [with secondary *-n* as has been shown by Bloomfield] which require *ku'ci as the archetype); Fox *mīᵃtci-* "eat", Cree *mītci-*; it is plausible (but no more) that *i'ła·mîsᶜ* "he, she has a stubby nose", is derived from *u + *θemi + *kuci, but it is possible that the archetype is *u+*θemi+*xkuci; the difficulty is caused by the fact that frequently in Algonquian languages consonantic differences between independent words for bodily parts and substantivals which are incorporated within the verbal compound are levelled, and it should be noticed that in any event that the Cheyenne word terminally shows such influence; for *-kuθä- is the expected substantival, cf. Cree *timikutēw* (from Lacombe) "he, she has a short nose", derived from *θemikuθäwa; now terminal *ä is characteristic for substantivals, terminal *i for independent nouns denoting bodily parts (thus Proto-Algonquian *u-nexki "his, her arm", *-nexkä- "arm"; proved by Cree, etc.); it is known that in Proto-Algonquian times *θ shifted to *c before *i; hence *-xkuθi would shift to *-xkuci, but the plural would be *-xkuθalᵢ; hence Ojibwa *uᶜkuj* "his, her beak", derived from *uxkuci, cf. Arapaho *bē'isᶜ* "somebody's nose", derived from *mexkuci: Cree *miskut* has taken the terminal *t* (the regular correspondent to Proto-Algonquian *θ) from the plural where it is justified; Cree has a doublet showing the analogical influence of the substantival; *mēn* "feather" (from Petter) is more easily derived from *mēkuna (Fox *mīguna*, Natick *me'kun*) than from *mekwana (Cree and Ojibwa *mīgwan*); note that in Cheyenne the word is inanimate in contrast with the gender in the other languages cited; the terminal *n* is retained either by analogy of the plural, or more likely because it is an accented monosyllable (cf. *vi'nⁿᵉ* "marrow", derived from *wēni*, Cree *wīni*, Ojibwa *wīn*); it is clear that *-ōka contracted (Proto-Algonquian *meθōkani "somebody's hip", Cree *mitōgan* "his, her hip", *uθōgani "his, her hip", Ojibwa *unōgan*), but unfortunately internal evidence shows that I have recorded the Cheyenne correspondent faultily and so the final result is not clear (the Cheyenne word "haunch" is animate plural also); *nasz* "one" (Petter; *z* means *ts*) is derived from *nekuti (Fox *neguti*, etc. Ojibwa *niñgut* has secondary *ñ*) and so clearly belongs here; *u normally becomes *i* which converts original following *t to *st*; *st* before *i becomes *sts*; the vowels *-u- and *-i are syncopated in the Cheyenne word. There is no question but that *k appears as a glottal stop at times. This shift is certain for the combinations *-aki, *-ākōki, *-āku-, *-āwaki, *-eki, *-ēki; also in *-ekwi under special conditions. Thus, *i'mā'ᵉ* "he, she barks", derived from *u+*meki, Ojibwa *migi* (it will be recalled that in Cree and Ojibwa *e* appears as *i*, and that in Proto-Algonquian *i* is not allowed after an initial consonant), derived from *mekiwa; *i'xā'ᵉ* "he, she urinates", derived from *u+*ceki, Fox *cegīwa*, Cree *sikiw*, Menomini *sekēw*, all derived from *cekiwa, cf. Ojibwa (Baraga) *jigiwin* "urine"; Cheyenne *vē'ᶦ* "tent, home place", derived from *wēki which was extracted from *uwēki "his dwelling", Fox *uwīgi* (Fox *nīgi* is derived from *nēki which stands for an earlier *newēki in accordance with the principles which I established years ago); Cheyenne *nāₐ'mᵃʰtō''ᶦ* "they agree with (listen to) me", derived from *nepemehtākōki (I shown previously that in Proto-Algonquian times *aw contracted to *ā before certain consonants, including *k, but to *ō before others, e. g. *θ; note *nāₐ'mahto'vᵘ* "I agree with him, her", derived from *nepemehtawāwa; Cheyenne *nāₐ'mahto'vᵃ* "he, she agrees with me", is an analogical new-

formation; if **pem-* combines with **-ehtaw-* in Fox, there are forms like **nepeme'tawāna *nepeme'tāgōgi, *nepeme'tāgwa, *kepeme'tōne,* etc.; **-ehtaw-* is common enough in Fox, and many Algonquian languages); Cheyenne *nį'yam^{a}h^{a}tō'in^{ni}* "he, she agrees with us" (inclusive), an analogical form initially or of alien origin, which is based upon **kepemehtākunāna* (or something very similar to this terminally); *nā„m^{a}h^{a}tō'in^{ni}* "he, she agrees with us" (exclusive), not in my schedules but formed on the basis of my material with tolerable certainty, would correspond to **nepemehtākunāna*; *hiĺa'nįyo'^{u}* "men", derived from **ilenɪwaki*, Cree *iyiniwag*, Ojibwa *ininiwag*, Menomini *inā'niwʌk.* (The Menomini phonemic singular *inānɪw* compells **nɪ*, not **ni*; Fox *ineníwa* is rare; Fox *neniwagi* is unoriginal initially); *hi'š* "fly", *hi'sįyo'^{u}* "flies", derived from **ōtcyäwa, *ōtcyäwaki* respectively, Cree *ōtcēw, ōtcēwag*, Menomini *ūtsī'w*, Ojibwa *ōdjī* (the plural *ōdjīg* is secondary); here also belong such verbal forms as Cheyenne *iv̄ōmįyo'^{u}* "they (an.) are seen" (with no agent expressed or understood) even if their history is not entirely clear; *na'vīrō'^{u}* "I mention them", derived from **newēnlāwaki* (which is doubtless an old recomposition), Cree *niwīhāwag*, Fox *newīnāwagi*; cf. Fox *wīnäwa* "he, she names him, her", Menomini *wēhnew*, Proto-Algonquian archetype **wēnläwa*); *na'hōimō'^{u}* "I count them (an.)", derived from **netakimāwaki* (intercalated **-t-* is analogically wiped out in Cheyenne verbs though not in nouns), Cree *nitagimāwag*; *nā„mahtovō'^{u}* "I agree with them (an.)", derived from **nepemehtawāwaki*; *nana'hō'^{u}* "I kill them (an.)", derived from **nene'lāwaki* (with **'l*, not **'θ* as given by Bloomfield; required by Eastern Algonquian *ni'l-* "kill", for **'θ* becomes *s* in those languages), Fox *nene'sāwagi*, cf. Menomini *ne'new* "he kills him", derived from **ne'läwa*. It is plausible that *navōmā'^{e}* "they see me", is derived from **newāpamekōki*, Fox *newāpamegōgi*; and other similar forms. But such forms as *iv̄ōmā'^{e}* "he is seen by" (singular or plural agent) are obscure terminally. It is possible that in some cases they were derived from **u—*kwa* (e. g., **uwāpamekwa*) and then extended analogically. In any event *ā* demands a short **e* as its archetype.

The word *nā''^{e}* "otter" belongs here; the Proto-Algonquian archetype is **nekekwa* as shown by Ojibwa *nigig* (plural *nigigwag*), Narraganset *nkeke*, pl. *neke'quock*; it is not easy to interpret the Cree variations given by Watkins, and the Menomini correspondent is also none too clear. It is owing to the special conditions that we have a different reflex of terminal **-ekwa* than we do in *nai''^{Ya}* "he fears me", derived from **neku'θekwa*, Cree *nikustig*, Fox *neku'segwa, namait^{a}* "he barks at me", Algonkin *nimiginig*, derived from **nemekeθekwa*, cf. Cree *migitēw* "he, she barks at him, her", derived from **mekiθäwa*, Ojibwa *umiginān* "he, she barks at him, her," derived from **u+*mekiθālɪ*. Cheyenne *na'ma'hā'a'n^{na}* "I enlarge it", is derived from **neme'θekenäni*; for **me'θ-* "big, large", cf. Cree *mist-*, Menomini *me'n-*, Ojibwa *mis-*; for **-eki-* cf. Fox *-egi-*, Cree and Ojibwa *-igi-*; for the instrumental **-en-*, cf. Fox *-en-*, Cree and Ojibwa *-in-*; the contrast with *na'hahpa'n^{na}* "I close it" (**nekepenäni*) presumably is due to the fact that the original *-k-* is in different syllables. The contrast between *na'ohā'^{e}* "I arise", derived from **nepasekwi* (Fox *nepa'segwi*; there are correspondents in Cree and Ojibwa; but since a Menomini correspondent is unknown to me I can not be positive whether **s* or **hs* should be assigned to the archetype), *ma'ex^{a}* "somebody's eye", derived from **meckēncekwi* (Cree *miskīsig*, Ojibwa *nickīnjig* "my eye", Kickapoo [Jones] *uskīcegwi* "his eye", *i'š'* "day", derived from **kēcekwi* (Fox *kī'segwi* "sky", Cree *kīsig*, etc.) is also due to the fact that the conditions are not precisely the same; it would seem that other consonants lost or converted to a glottal stop ['] have a controlling influence, but without many examples it is unwise to attempt to formulate the exact rules.

There is no question but that *maistō'^{u}*

"somebody's throat", is derived from a Proto-Algonquian archetype **mekuntākani* (Arapaho *bētᵩ*, Cree *miguhtāgan*, Kickapoo *ugutāgāni* [Jones] "his, her throat", Ojibwa *ugundāgan*, **ukuntākani*); it is possible that we have a different reflex terminally in *hiĭu'hkᵘ* "vessel, dish", derived from **ulākani* (Cree *uyāgan*, Ojibwa *unāgan*; Fox *anāgani* has secondary initial *a-*) owing to the loss of **-k-* in the case considered first; but it should be pointed out that in Cheyenne *-ō'ᵘ* (pl. *-ō^nᵘtsᶜ* [recorded once as *-ō^unᵘtsᶜ*]) is so common in bodily parts, e. g., *histstō'ᵘ* "his jaw", *^maʰta'tmō'ᵘ* "somebody's shoulder", *^maʰtsi'tō'ᵘ* "somebody's palate", *histse''ō'ᵘ* "his, her elbow", that it is plausible that in reality it arose phonetically in one instance or so and then was extended analogically — a process happily termed by Maurice Bloomfield, the eminent Sanskritist, "the congeneric adaptation of suffixes." For it can be easily shown that the Proto-Algonquian archetypes of the words under discussion did not all have the same suffixes (**metāpixkani* "somebody's jaw", **meteθemañkani* "somebody's shoulder", **metuckwani* "somebody's elbow" [possibly built up analogically on the basis of **uckwāni*; there are parallels], **melakatckwa* "somebody's palate").

I do not know the rationale of such doublets as *ivu'hkiya'un^na ivu'htciya'un^na* "he, she has a crooked shin", *ma'akisᵘ ma'atcisᵘ* "old man," etc. Both seem to be considered equally idiomatic among both Southern[1] and Northern Cheyenne; and both the Southern and Northern Cheyenne denied that one really was Cheyenne and the other Sutaio. One southern Cheyenne said the *tc* forms were "old-fashioned"; in view of the fact that where the etymologies are known the *k* forms are the archaic ones, the information is not very enlightening.

The combination **-hk-* becomes *-'-* in the sequences **-ahka-*, **-ahkā-*, **-hkyā*. Thus, *imu'ᵘta'vᵘ* "it is black", derived from **u+*mahkatāwā*, cf. Cree *mahkatēwāw*, Fox *ma'katāwāwi*, both derived from **mahkatāwāwi*; *ito'ō'mᵐᵉ* "it is cold" (of a liquid; with analogical *t* for **st* which we should expect after *i*), derived from **u+*tahkākami*, Cree *tahkāgamiw*, Ojibwa *ta'kāgami*, both derived from **tahkākamiwi*; cf. Fox *ta'kyāwi* "it is cold", derived from **tahkyāwi*; *e'yo'ᵘ* "it is dry", derived from **u+*kāhkyā*, cf. Fox *kā'ke'samwa* "he dries it, derived from **kāhkesamwa*, Cree *kâkkewok* "viande sèche", cited by Lacombe (who regularly uses *kk* for *hk*), Algonkin *kakat-* "sec, desséché", cited by Cuoq (who regularly employs *k* for *'k*). It is probable (but not absolutely certain) that *na'si'ha'ovᵘ* "I rouse him, her (from sleep)" is derived from **necēhkeckawāwa*, cf. Cree *sīhkiskawēw* "he stirs him up, induces him", derived from **cēhkeckawäwa*, Cree *sīhkimēw* "he encourages him", derived from **cēhkimäwa* (with the same stem and termination, but a different instrumental particle); it is barely possible that the archetype had **ñk* rather than **hk*, though Cheyenne phonology is not very favorable to this; an Ojibwa, Peoria, or Delaware cognate is needed to be positive; the *h* of the Cheyenne word is secondary, cf. *nāivʰᵃ* "I return" = Fox *nekiwe*. The combination **hk* seems to be lost in the sequence **-ahku-*, thus, *na'tōi'n^nᵘ* "I hold him, her", derived from **netahkunāwa*, Ojibwa *ninda'kunā*, cf. Cree *tahkunēw* "he, she holds him, her"; *natōeyo'vᵘ* "I press him down with my foot", derived from **netahkuckawāwa*, cf. Cree *tahkuskawēw* "he treads on him", derived from **tahkuckawäwa* (with the same stem and pronominal elements as *tahkunēw*, but a different instrumental particle; observe here *y* represents **ck*). — Proto-Algonquian **xk* normally becomes *'* in Cheyenne. Thus, Proto-Algonquian **uxkuni* "liver", Cree *uskun*, Arapaho *hīs*, Kickapoo *u'kuni*, Cheyenne *he''ⁱ* (the plural *he''stsᶜ* is a late analogical formation; *he'i'nstsᶜ* is considered better; this too is in part analogical: for while it could come from **uxkunyälı*

[1] A southern Cheyenne informant whom I interrogated recently [May, 1934] uses only the *k* forms.

there is good presumptive evidence against a singular **uxkunɪ* which **uxkunyälɪ* presupposes); Proto-Algonquian **axkɪ*, pl. **axkyälɪ* "land, lands", Cree *aski*, Fox *aʻki*, *aʻkyäni*, Cheyenne *hoʼʼᵉ*, *hoʼiʼsᵗˢᶜ*; **nenemexkiwa* "thunderer", Fox *neneme'kiwa*, Cheyenne *nunuʼma'ᵉ* (see the discussion of the changes of Proto-Algonquian **e* in Cheyenne); Proto-Algonquian **mexkēwani* "somebody's nose", **uxkēwani* "his, her nose", Cree *miskīwan*, *uskīwan*, Fox *uʻkīwani*, Cheyenne *maʼeʼvᵘ*; Proto-Algonquian **ixkwäwa* "woman", **ixwäwaki* "women", Arapaho *hisē*, *hisē'no'ᵎ*, Cree *iskēw*, *iskwēwag*, Fox *iʻkwäwa*, *iʻkwäwagi*, Cheyenne *heʼʼⁱ* (owing to phonetic shifts coincides with the word for "liver"); Proto-Algonquian **mexkwāmi* "ice", Cree *miskwāmi*, Ojibwa *miʻkwām*, Arapaho *waʼʼowu*, Cheyenne *maʼʼumᵐᵉ*; Proto-Algonquian **nexpexkwani* "my back", **uxpexkwani* "his, her back" [but apparently **-pexkwanä-* in verbal compounds], Cree *nispiskwan*, Arapaho *naʼkω* (with *a* for **e* by vocalic assimilation; as also in *waʼʼowu*), Cheyenne *naʼpaʼᵘ* (there are cognates in other languages, but it is not easy to judge them as they may not be accurately recorded) [the last three examples are inserted here for convenience]. Proto-Algonquian **xk* appears as *'k* between original **ā*—**a*, original **u*—**a*, original **e*—**e*. Thus, Proto-Algonquian **anäxkani* "rug", Fox *anäʻkani*, Ojibwa (Baraga) *anakan* (presumably *anäʻkan*), Cheyenne *hunuʼʼkᵘ* (animate as shown by the plural *hunuʼʼkunᵃᵘ* which is clearly secondary); Cree *anāskēw* "he spreads something on the ground", a clear cognate, demands **anäxk-*, not **anähk-*; Proto-Algonquian **uxkani* "bone", **uxkanalɪ* "bones", Cree *uskan*, Fox *aʻkani*, *aʻkanani* (with secondary *a-* for *u-*), Ojibwa *uʻkan*, *uʻkanan*, Arapaho *hixᶜ*, *hixäʼnᵑ*, Cheyenne *heʼkunᵃᵘᵗˢᶜ* "bones"; Cheyenne *nāaʼkaʼnⁿᵃ* "I round it like a ball", derived from **nepexkenäni*, analogical for **nepexkunäni*, Cree *piskwāw* "it has a lump", derived from **pexkwāwi*, Fox *peʻkwi-* "cluster," derived from **pexkwi-*. Between Cheyenne *i* (earlier **yä*) and *o* (earlier **a*) **xk* appears as *y*, thus, *miyoʼʼᵘ* "road", derived from **myäxkanäwi*; the medial *n* is shown in the Cheyenne pl. *miyonᵃᵘᵗˢᶜ*; cf. Cree *mēskanāw*, Ojibwa *mīʻkanā* (Cheyenne *i* becomes *į* before Cheyenne *y*). The combination **-ōxku-* yields *î* (normally **ō* becomes *i* as does **u*; all original long vowels are normally shortened in Cheyenne), thus *naʼpînⁿᵘ* "I crush him, her", *napîʼnⁿᵃ* "I crush it", derived from **nepōxkunāwa* and **nepōxkunäni* respectively, cf. Cree *pōskunēw* "he, she bursts him, her with the hand", *pōskunam* "he, she bursts it with the hand", Fox *pōʻkwi-* "break," *pōʻkunäʻsa* "he might break it", Algonkin and Ojibwa *pōʻku-* "break". It is not absolutely certain how *naʼʼaʼuʼnⁿᵉ* "my shin" is to be judged; but the probabilities are that it is to be derived from **nexkaxkwani* in view of Menomini *uhkäʼhkwʌnan* "his shin" (Bloomfield's Menomini Texts, 132). Then it would seem that Kickapoo *ugaʻkwäni* (Jones), and Ojibwa *ugaʻkwan* (Jones, but in my transcription) have generalized *g* from **k* in the substantival *-*kaxkwanä-*. A parallel is **nexpexkwani* "my back", but **-pexkwanä-* "back"; also it is clear that Kickapoo *ugāʻki* "his, her chest" presents the same problem as contrasted with Cree *miskāskigan* "chest" (which is supported by Montagnais [Lemoine] *shkassigan*; knowledge of proved Montagnais shifts is presupposed); at the same time **-äxki-* which is demanded by at least Cree, Ojibwa and Algonkin, is unclear. The second *a* in *naʼʼaʼuʼnⁿᵉ* is doubtless due to vocalic assimilation. The contrast with *naʼpaʼᵘ*, derived from **nexpexkwani* "my back" is probably due to the position of the accent.

Proto-Algonquian **ck* normally appears as *'* in Cheyenne. Thus, Proto-Algonquian **ickutäwi* "fire", Arapaho *hiši'tä*, Cree *iskutēw*, Menomini *iskōʻtäw*, Fox *ackutäwi*, Ojibwa *ickudä*, Cheyenne *hoʼiʼstᵃ*; Proto-Algonquian **meckēncekwi* "somebody's eye", **neckēncekwi* "my eye", **uckēncekwi* "his eye", Cree *miskīsig*, Kickapoo (Jones) *uskīcegwi*, Shawnee (Gatschet) *huskisegwi*, Natick *mus-*

kēsuk, Ojibwa *nickīnjig*, Arapaho *beši'se'ᵉ*, Atsina *besδθ*, Bāsaⁿwūnenaⁿ *hicīsä*, Nāwaθinähāⁿnaⁿ *masixsan*, Cheyenne *ma'e'xᵃ*; if Cheyenne *naho'xa'o'vᵘ* "I cross, pass him, her" is cognate with Cree *āsiskawēw* "he, she arrives before him, her", Proto-Algonquian **netā'ceckawāwa*, **ā'ceckawäwa* would be the archetypes, but it is dubious if independent *'c* existed in Proto-Algonquian: if so it must have been very rare; but in any case the instrumental **-eckaw-* has representatives in Cree *-iskaw-*, Fox *-eckaw-*, Ojibwa *-ickaw-*, and Arapaho *-xan-*; Cheyenne *navuna''ᵃ* "I make it disappear by tramping upon it", is derived from **newaneckäni*, but is doubtful if in Proto-Algonquian times **wan(i)-* combined with *-eck-* in the above sense, but both stem and instrumental existed as shown by Cree, Fox, Ojibwa, etc. The combination **-ēcke-* contracts to *-i-*, thus, *nāi's*ᵘ "I cut him, her", derived from **nekēckecwāwa*, Fox *nekī'cke'cwāwa*. The combination *-uck-* becomes *-eyo-*, thus, *natōeyo'v*ᵘ "I press him, her under foot", derived presumably from **netahkuckawāwa*, but the prior portion is uncertain since I only know cognates in Cree, Ojibwa etc. sources which I can not control with absolute accuracy: but in any case **-uckawāwa* is certain. I have but one example showing the treatment of **-ckw-*, namely, **metuckwani* "somebody's elbow", **netuckwani* "my elbow", Cree *mituskwan*, *nituskwan*, Ojibwa *ninduckwan*, Arapaho *betis*, *netis* (plural *netixa'nǫ*), Cheyenne *ᵐᵃhtse''ō'*ᵘ. To the examples showing the change of **ck* to ' add Proto-Algonquian **meckāhtekwi* "somebody's forehead", **uckāhtekwi* "his, her forehead", Cheyenne *ma'u'htᵃ*, Cree *miskāhtig* (pl. *-gwa*), Algonquian *uckā'tig* (locative *uckā'tiguñg*, derived from **uckātekuñki*). — The history of Proto-Algonquian **çk* is none too certain owing to the fact that so far there are only two certain examples of this quite aside from Cheyenne, namely, **meçkwi* "blood" (related is **meçkusiwa* "he, she is red", Ojibwa *mihkuzi* cited by Bloomfield is a misprint for *mickuzi* in his transcription), and **nōçkwā-* "lick" (recently pointed out by me in IJAL VIII:41): Proto-Algonquian **meçkwi*, Cree *mihku*, Fox *me'ckwi*, Menomini *mehkīh*, Ojibwa *mickwi*, etc., Cheyenne *ma'ᵉ* "blood"; Proto-Algonquian **nōçkwā-* "lick" (with the instrumentals **-θ-* **-t-*), Cree *nōhkwātēw* "he, she licks him, her", *nōhkwātam* "he, she licks it", Algonkin *ninōckwānā* "I lick him, her", *ninōckwātān* "I lick it", Cheyenne *nañiu'mᵐᵘ* "I lick him, her", *nañiu'htᵃ* "I lick it" (in Cheyenne the instrumentals **-m-* **-nt-* have replaced the original ones; **-nt-* regularly appears as *-ht-* in Cheyenne; Natick *noosquatam* "he licks it" belongs here, but since **t* and **nt* fall together in Natick we can not tell what the *t* stands for). — The history of Cheyenne *hami'šk*ᵘ "spoon" is uncertain, for though connection with Cree *ēmihkwān* (Montagnais *emikuan*, Lemoine), Fox *äme'kwäni*, Menomini *ämiskwʌn*, Ojibwa *ämi'kwān*, etc. is obvious, yet there is no known Proto-Algonquian single archetype which will account for them. The statement that **ämeçkwäni* will satisfy the requirements of the Menomini and Cree forms (IJAL VIII:39) is an error. The contrast between Shawnee *hemkwa* (pl. *hemkwana*) and *miskui* "blood" adds to the uncertainty. The former favors an archetype **ämexkwäni* in view of *mkwa* "bear" which is derived from **maxkwa* as shown by Fox *ma'kwa*, Cree *maskwa*, etc. Yet since the detailed history of **hk* in Shawnee is not known as yet with absolute precision more can not be said. (The Shawnee words are quoted from Gatschet's MSS.; from my own Shawnee work I think that the *k* in the words for "spoon" and "bear" is glottalized.) Cheyenne *hami'šk*ᵘ presents a difficulty in having *i* where *a (ɑ)* would be normal. It does not favor **ämexkwäni* as the archetype in view of *maⁿ'umᵐᵉ* "ice" which is derived from **mexkwāmi* (Cree *miskwāmi*, Ojibwa *mi'kwām*); Proto-Algonquian **i* does not occur after an initial consonant. In view of the fact that **c* makes **a* following become *i* (whereas the normal change is to *o* or

u), e. g., *na'sivaĭa*^{mu} "I pity him", derived from **necawälemäwa*, cf. Cree *sawēyimēw* "he, she blesses him, her", derived from **cawälemäwa*, Algonkin *cawänim* "have mercy upon him", derived from **cawälemi*, it would seem as if *hami'šk*^{u} favored **ämeckwäni* as the archetype, but this will not answer for the Fox, Ojibwa and Cree forms. A real solution is unknown. Abnaki *emk8änn* is cited by Rasles and Micmac *emkwăn* by Rand; in view of our inadequate knowledge of phonetic shifts in these languages at present these can not help us in the reconstruction of the archetype. Delaware possesses a correspondent that clearly is a diminutive; for similar reasons it is at present unavailing. — Terminal **-ñki* is lost, thus, *hō'm*^{ma} "on the other side of a river", derived from **akāmeñki*, Cree *agāmihk*, Ojibwa *agāmiñg*, cf. also Fox *agāmä'egi* "across the river, etc."

Medial **-eñki-* contracts to *-î-*, thus *i'sîs'* "he, she is lying down", derived from **u*+**ceñkihcine*, cf. Fox *necegi'cine* "I am lying down", derived from **neceñkihcine*, *cegi'cinwa* "he, she is lying down", Menomini *sehkēhsin*, Ojibwa *ciñgicin*, all three being derived from **ceñkihcinwa*; Cree *sihkisimēw* "he, she lays him, her down straight", derived from **ceñkihcimäwa*. Medial **-eñkwä-* contracts to *-o-*, thus *nahehpinom*^{me} "I oversleep", derived from **netumpineñkwäme* (intercalated **-t-* is wholly wiped out analogically in Cheyenne verbal forms; **mp* regularly becomes *hp* in Cheyenne; though I cannot recall **-n-* in this combination, a parallel is Fox *-nīgwä-* "eye", beside *-īgwä-*), Fox *-egwāme-* "sleep", Cree *-ihkwāmi-*, *-ihkwāmo-*, Menomini *-ihkuami-*, Ojibwa *-iñgwāmo-* (to judge from Lemoine, Algonkin apparently also has a doublet *-niñgwāmo-*); **umpi-* "up" (Fox *upi*, Cree *uhpi-*, Ojibwa *umbi-*, etc.) has been extended in meaning, and so partially replaces the correspondent to **usāmi* "too much", postulated by many Algonquian languages. Whether Cheyenne *na'si'ha'o'v*^{u} "I rouse him, her from sleep" is derived from **necēñkeckawāwa* or from **necēhkeckawāwa* can not be determined from Cree *sīhkiskawēw* "he, she constrains, induces, stirs him, her (up)": an Ojibwa, Peoria, Delaware correspondent is needed to determine this. — Proto-Algonquian **y* becomes *t*, but a preceeding *i*-vowel does not convert this to *st*; but a following *i*-vowel changes it to *ts* (suffering therefore the same change as original **t* in this position); original **y* is regularly lost after consonants, but the combination of **yä* after consonants becomes *i*; since Proto-Algonquian **ä* normally appears as *a (a)* it appears that the contraction of **yä* to *i* is prior to such change, and it is also prior to the loss of postconsonantic *y* (a very similar state of affairs obtains in Menomini, Ojibwa and Peoria). Examples are Proto-Algonquian **tcēpaya*, pl. **tcēpayaki*, "corpse, ghost", (**tcēpāya* would he expected rather than **tcēpaya* because of Fox *netcīpāmenāna* "our [excl.] dead", Cheyenne ^{na}*sį'yutam*^{me} "my dead" is an analogical reformation going back to **netcēpayema*) Fox *tcīpaiya*, *tcīpaiyagi*, Cree *tcīpay*, *tcīpaiyag*, Arapaho *θi'k*^{u}, Cheyenne *sįyut*^{u} (plural; the singular has analogical *ts*; everwhere this has been extended in Cheyenne at the expense of *t* [irrespective of source] which would be final in Cheyenne: cases like ^{na}*hto'vō*^{utsc} "my ear", ^{na}*htovō*^{utsc} "my ears," Proto-Algonquian **nehtāwakāyi*, **nehtāwa-kāyalı* [**ht*, rather than **t* restored on the basis of Ojibwa and Cree forms given by Baraga, Lacombe, and Watkins, also the Menomini form given by Bloomfield; the Fox and Kickapoo forms of the late Dr. Jones then would be analogical] are the inducing factors); Proto-Algonquian **nēyawi* "my body", Cree *nīyaw*, Fox *nīyawi*, Menomini *nēyaw*, Ojibwa *niiaw* (Baraga; *nīyaw* in all probability), Cheyenne *ni'ĭov*^{e}; Proto-Algonquian **nyäwi* "four", Fox *nyäwi*, Menomini *nīw*, Arapaho *yēn*, Cheyenne *niv'*; Proto-Algonquian **newētcyäwäwa* "I go with him, her" (with analogical **newē-*), *wētcyäwäwa* "he, she goes with him, her", Fox *newī^{a}tcäwäwa*, *wī^{a}tcäwäwa*, Cree *wītcēwēw*, Menomini *wītsīwäw*, Ojibwa *wīdjīwād* (a different mood; Menomini and Ojibwa

as well as Cheyenne demand **tcyä*, not **tcä*), Cheyenne *na'višī'ᵉᵛ*; Cheyenne *na'o'sinⁿᵘ* "I cut him, her open in the belly, abdomen", derived from **nepāxketcyänāwa*, Proto-Algonquian **pāxkenäwa*, **pāxkenamwa* "he, she opens, uncovers him, her, it", Cree *pāskinēw*, *pāskinam*, Fox *pā'kenäwa*, *pā'kenamwa*; Fox *ke'kiteᵈtcänäwa* "he, she grabs him, her around the body", Fox *upickwäᵈtcäwa* "he, she is big around the waist", Algonkin and Ojibwa *misidjī* "he, she has dropsy" (litterally, "he, she has a big belly", derived from **me'θetcyäwa*; I suspect that Fox *mīsetcäwᵃ*, given by Jones with the same meaning, really goes back to the same archetype; but since *mes-* [*me'ˢ-*] "big" is probably unknown to Fox [though it would correspond absolutely to **me'θ-*] *mīs-*[*mī'ˢ*] "hairy" has been substituted for it, for "he, she has a hairy belly" is not appropriate, but **me'seᵈtcäwa* "he, she has a big belly" would be eminently so); Proto-Algonquian **myäxkanāwi* "trail, road", Cree *mēskanāw*, Ojibwa *mī'kanä* (restored with practical certainty from Baraga), Cheyenne *mįyo'ᵘ* (pl. *mįyonᵘᵘᵗˢ'* derived from **myäxkanāwalı*) [the whole is an old compound: **-xkanāwi* (or rather its equivalents) occurs in Cree and Ojibwa; note also Fox *myäwi* "way, road"]; Proto-Algonquian **ōtcyäwa* "fly" (the insect), Cree *ōtcēw*, Menonimi *ūtsī'w*, Ojibwa *ōdjī* (no other archetype will account for the Cree, Menomini and Ojibwa words), Cheyenne *hi'š* (the pl. *hi'sįyo'ᵘ* is based upon **ōtcyäwaki*; **ō* regularly becomes *i* in Cheyenne, thus, Proto-Algonquian **nōnläwa* "she suckles him, her", **nenōnlekwa* "she suckles me", Cree *nōhēw*, Fox *nōnäw*, Menomini *nōhnew*, Cheyenne *na'niha*); Cheyenne *ihi'sᵘ* "it is from there", derived from **u*+**untcyā* (which archetype is demanded by the general principles of Algonquian linguistics [cf. Fox *tahkyäwi* "it is cool"]; if exact correspondents exist in other Algonquian languages I do not know them, but **untcīwa* "he, she comes from there" is backed by Cree *uhtcīw*, Fox *uᵈtcīwa*, Ojibwa *undjī*, and is also supported indirectly by Menomini *uhtsēmow* "he calls out from there"); Cheyenne *ivi'hpᵘ* "it is hollow", based on **u*+**wēmpyā*, cf. Cree *wīhpāw* "it is hollow," based on **wēmpyāwi* (if a Menomini correspondent exists, it would show this very clearly) Algonkin and Ojibwa *wīmb-* "hollow", Cheyenne *na'vihpa'nⁿᵃ* "I hollow it", based on **newēmpenäni* (or something very close to this). The Proto-Algonquian archetype of "five" is presumably **nyālanwi*, as I have shown in Language, IX: 270—272. I there postulated **niyālan* as the Proto-Cree form. This, I am happy to say, has just been found by Dr. J. Cooper in a Cree dialect near Albany: which is very reassuring. Cheyenne *no'hun* is a puzzle. Obviously it can not come directly from **nyālanwi*: but if this was assimilated to **nyānlanwi*, an archetype is found which satisfies Cheyenne phonetics. — Proto-Algonquian **tc* becomes *s* in Cheyenne. Thus, *i'ʏōisᶜ* "he, she is hanging", based upon **u*+**akōtcine* (intercalated **t* is regularly abandoned in Cheyenne verbs; *ʏ* [voiceless *y*] replaces *h* when after *i* and before certain wowels; **-ne* rather than **-n* in accordance with establisted principles), Cree *agōtcin* "he hangs", based upon **akōtcinwa*, Fox *agōᵈtcinwa*, Ojibwa *nindagōdjin* "I hang, am suspended", based upon **netakōtcine* (the final *e* is not absolutely certain, but there is a strong presumption in favor of it; as long as this is immaterial to the present argument I omit further discussion); Proto-Algonquian **tcēmāni* "canoe", Cree *tcīmān*, Fox *tcīmāni*, Arapaho *θī'ʷᵘ* "boat", Cheyenne *si'mᵐᵘ* "boat"; Proto-Algonquian **nētcyān-* "child", **nenētcyānehsa* "my child", **nētcyānwa* (?) "child", **nētcyānōki* "children", Fox *nenīᵈtcāne'sa*, Menomini *ninītsianeh* (but *unītsyʌ'nehsʌn* "his children"), *nītsi'ʌnuk* "children," Ojibwa *ninīdjānis*, Delaware (Brinton) *nitschan* "my child", Mahican (Edwards) *wnechun* "his child", Natick *neechanog* "children", *keneechanog* "thy children" (**kenētcānōki*), Cheyenne *nañi'sᵘ* "my child", *nañi'sunįʏu* "my children" (the exact archetypes can not be established with certainty as the plural termination may be analogical); Cree *iskwē-*

tcān "the last child", i.e., "the youngest of the family", obviously belongs: the prior member of the compound is based on Proto-Algonquian **ickwä-* (Fox *a'ckwä-*, Ojibwa *ickwä-)*; the posterior portion presumably goes back to **-tcyānwa* which would not violate Cree phonetic shifts, but as I have not a locative, nor obviative, nor plural at my disposal **-wa* must remain a little uncertain; doublets such **nāpäwa* "male," **-āpäwa* are too well-known to merit discussion; **nētcyānwa* and **-ētcyānwa* parallel them; the contraction of **āē* to **ä* is not without parallel, but it is possible that the contraction is really Cree *iskwē*+*ētcān*. Arapaho *nenī'sω* "my child" (pl. *nenīsωnǫ'*) demands **nenētcyān-* with certainty, and so obviously belongs here; **nenētcyānwa* would not violate known phonetic shifts (observe **tcy* is kept distinct from **tc*). — Proto-Algonquian **'t* remains in Cheyenne. Examples are Proto-Algonquian **nepe'tecwäwa* "I accidently cut him, her", **pe'tecwäwa* "he, she accidently cuts him, her", **pe'tecamwa* "he, she accidently cuts it", **pe'tenamwa* "he picks it up by mistake", Cree *pitiswēw*, *pistisam*, *pistinam*, Fox *pe'te'cwäwa*, *pe'te'camwa*, Menomini *pe'tenam*, Ojibwa *pi'tinañg* (a different mood); Proto-Algonquian **a'täwi* "it sets", **u*+**a'tä* "it sets", Cree *astēw*, Fox *a'täwi*, Cheyenne *i'vo''t^{a}* "it sets" (it will be recalled that in Cheyenne verbal forms the so-called intercalic **-t-* is completely wiped out analogically); Proto-Algonquian **mä't-*[1] "exhaust, consume, exterminate", Cree *mēstinam* "he consumes it", Menomini *mä'tenam*, Ojibwa *mä'tā'kwidin* "it is worn out in the woods", Cheyenne *nama''to'a'n^{ne}* "I have said all that I am going to say, I have exhausted words" (*-o'an^{ne}* "voice, words" is very common in Cheyenne), Cheyenne *i$\bar{m}$a't^{u}hto'v^{a}* "he has bought all", derived from **u*+**mä't*+*atāwä*, compare Fox etc. *atāwäwa* "he trades".

[1] The recognized doublet **mä'tci-* (Menomini *mä'tsi-*, Cree *mēstci-*) has an exact equivalent in Arapaho *bäθi-*; I do not know if Arapaho has a correspondent to **mä't-*.

Proto-Algonquian **θ* becomes *t*, but this change is clearly late, for *t* from **θ* does not become *st* after an *i*-vowel as original **t* does. Examples follow: Proto-Algonquian **meθe'ciwaya* "somebody's testicle", **neθe'ciwaya* "my testicle", Cree *nitisiway*, Menomini *ninä'siway*, Cheyenne *mataxi'v^{ut}* (cf. Fox *-neciwä-*, derived from **-θe'ciwä-*); Proto-Algonquian **nenakaθäwa* "I abandon him, her", Fox *nenaganāwa*, Cree *nagatēw* (derived from **nakaθäwa*) "he, she abandons him, her", Cheyenne *na'nōt^{u}* (**-aka-* has contracted to *-ō-*; final **-wa* is regularly lost); Cheyenne *naĭu'm^{u}hta'n^{na}* "I erect it, raise it", derived from **neθamatenäni*, Cheyenne *naĭum^{u}htō'^{e}* "I sit up", derived from **neθamatapi*, Cheyenne *iĭu'^{mu}siyō''^{e}* "he stands erect", derived from **u*+**θamatci*+ **kāpawi* (**-kāpi?*), Arapaho *θω'waθīnǫ* "I arise", derived from **θamatciyāni* (the rhythmic law referred to above account for the long vowel of the first syllable; the Arapaho form proves initial **θ-*, and bars **l-* in the archetype), Natick *nummatappu* "he sat down" (**θamatapiwa*), Ojibwa and Algonkin *namat-*, *namatci-* (note especially Algonkin *namatapi*, *namatcikapawi* [from Cuoq; Lemoine has equivalents], Ojibwa *namatcigâbawi* [from Baraga]) [I am now convinced that my proposed equation of Cree *tcimatēw* "it is erect, stands up", Fox *nematäwi*, which might come from **θcematäwi*, is erroneous (IJAL VII:93); for it can now be proved that dialectically Cree *t* may be palatized, becoming *tc*; Algonkin *cimat-*, *cimadji-* demand the archetypes **cemat-*, **cematci-* with the same meanings as **θamat-*, **θamatci*; now Cree *simat-*, *simatci-* faithfully reflect **cemat-*, **cematci-*; and **θamat-*, **θamatci-* theoretically would yield Cree **tamat-*, **tamatci-* which do not occur as far as I know, but dialectically *samat-*, *samatci-* do occur: these I consider as due to the analogy of *simat-*, *simatci-*; Cree *tcimat-* I take to be for **timat-* which stands for **tamat-*, derived from **θamat-* influenced by the vocalism of *simat-*; **θamasowa* should yield Fox **namasōwa* and **θamatäwi* should yield Fox **nama-*

täwi; the disburbing factor I believe is **cemat-* etc.; such phenomena are commonplace in Indo-European linguistics]; Proto-Algonquian **nēθemwa* "my sister-in-law" (with male speaker), "my brother-in-law" (with female speaker), Fox *nīnemwa*, Cree *nītim*, Menomini *wēnimun* "his sister-in-law", "her brother in law" (derived from **uwēθemōlı*), Ojibwa *nīnim*, Abnaki *nilem* (from Laurent), Delaware *nilum* (from Brinton), Cheyenne *nitam*^{me}; Proto-Algonquian **waθanı* (unless analogically **waθani* in Proto-Algonquian times; **θ* is demanded by Ojibwa and Algonkin words only remotely connected) "his, her tail" (of a bird), Cree *watani*, Cheyenne *vu'ī*^{u} (the plural *vutu'nsts*$^{\epsilon}$ presupposes **waθanyälı*, which in turn demands a singular **waθanı* rather than **waθani*); Proto-Algonquian **mēθakāyi* "somebody's penis", **uwēθakāyi* "his penis", Cree *wītagāy*, Fox *mīnagaiyi*, Menomini *mē'nʌk*, Ojibwa *wīnag*, Cheyenne *mavi'ī'ō*$^{uts\epsilon}$ (derived from **mewēθakāyi*, an analogical new-formation for **mēθakāyi*; the contraction of **-ewē-* to **-ē-* occured in pre-Algonquian times as I have shown previously; for the contraction of **-akā-* to *-ō-* see the discussion of the treatment of Proto-Algonquian **k*; **y* becomes *t* which becomes *ts* before an *i*-vowel whether this is lost or not); Proto-Algonquian **nemekiθekwa* "he, she barks at me", Cree *migitēw* "he, she barks at him, her" (derived from **mekiθäwa*), Ojibwa (Baraga) *omiginan* (presumably *umiginān*) "he, she barks at him, her" (derived from **u+*mekiθālı*), Cheyenne *namāit*^{a} "he, she barks at me" (Proto-Algonquian **me-* is certain because **i* does not occur after the first consonant of an initial stem; **ne—*kwa* need no comment). — Proto-Algonquian **'θ* becomes *'h* in Cheyenne. Thus *i'ma'hāēs*$^{\epsilon}$ "he, she has a large nose", based upon **u+*me'θexkuci*; Proto-Algonquian **mexkuci* "somebody's nose, beak", **uxkuci* "his, her nose, beak", Arapaho *bē'is*$^{\epsilon}$, Ojibwa *u'kuj*; Proto-Algonquian **me'θāpuswa* "great hare", Cree *mistāpus*, Menomini *Me'napus* [name of the culture-hero], Ojibwa *misābus*; Proto-Algonquian **me'θāpäwa* "big man, giant", Cree *mistāpēw*, Ojibwa *misābä* [in Fox **me's-* "big" does not seem to accur, but *me'ci-* does, Proto-Algonquian **me'ci-* (a well-recognized doublet of **me'θ-*); **me'ci-* is demanded by Cree *misi-*, Fox *me'ci*, Ojibwa *mici-*, etc.]; owing to the fact that in Arapaho **'θ* and **'c* merge into *s*, that language can be used only with caution in reconstructing archetypes which demand either of these sounds; Proto-Algonquian **ne'θemya* (with analogical **-ya* for **-yä)*, "my daughter-in-law" (see American Anthropologist, N. S., 34, pp. 357-359), Algonkin and Ojibwa *nisim*, Arapaho *nā'seb*, Cree *nistim* "my cross-niece, my daughter-in-law", Fox *ne'semya*, Menomini *ne'nɛmɛh* (terminally influenced by the original term for "cross-niece") "my cross-niece," Cheyenne *na'ha'm*^{me} "my cross-niece;" Proto-Algonquian **ku'θäwa* "he, she fears him, her", **neku'θekwa* "he, she fears me", Cree *kustēw*, Fox *ku'säwa*, *neku'segwa*, Menomini *ko'new*, Cheyenne *nai''*$^{Y\alpha}$ (with ^{Y}, voiceless *y*, secondarily for *h*); *to''hovi't*^{u} "it is in between," based upon **θa'θāwiyā*, cf. Cree *tastāwitc* "in between", based upon **θa'θāwitci*, *tastāwāw* "it is between", based upon **θa'θāwāwi*, Cree *tāwi-*, Fox and Ojibwa *nāwi-* "between", source **θāwi-* (for the formation cf. Fox *ta'tagwi* beside *tagwi* "together" without pushing the parallel too closely as this would involve us in phonological difficulties). – Proto-Algonquian **'l* also becomes *'h* in Cheyenne, thus Proto-Algonquian **neta'lāwa* "I place him, her", **a'läwa* "he, she places him, her", Cree *ahyēw*, Menomini *a'new*, Fox *neta'sāwa*, *a'säwa* (beside "place", also "have"), Ojibwa *nindasā*, Cheyenne *na'ho'hu* "I have him, her" (it will be remembered that intercalated **-t-* is analogically wiped out in Cheyenne verbs, though not in nouns); Cheyenne *ee''h*^{a} "he, she flies up", based upon **u+*icpi'lä*, cf. Cree *ispiyāw* (from Watkins), Natick *ushpushou*, **icpi'läwa*, "he, she flies high"; Cree *pimihāw* (Bloomfield), Fox *pemi'säwa*, Meno-

mini *pemē'new*, Ojibwa *pimisä*, all based upon **pemi'läwa* "he, she flies along", Cree *ispāw*, Ojibwa *icpā*, both based upon **icpyāwi* "it is lofty, high"; Cheyenne *nahohta'han*^{ni} "I narrate, tell", based upon **netāte'l-*, cf. **āte'lōhkä-* etc. in Plains Cree *ātayōhkēw* "he tells a tale, fable", *ātayōhkan* "fable" (dialectic *ātanōhkan*; the rules given by Bloomfield for the representation of **'l* in Cree are nearly but not quite complete; the dialectic treatment is quite variable; Cree *āta-* for *āti-* with vocalic assimilation); *ātayōhkēwin* "sacred story" (*ātayōhkäwin* in Bloomfield's transcription which occurs many times in his texts; I have noted *āti-* once which I take to be an error), Fox *āte'sō'käwa* "he, she tells a story", *nī'āte'sō'kānāwa* "I shall tell the story of —", *āte'sōhkāgani* "story, fable", Menomini *āte'nōhkʌkʌn* "tale, fable" Ojibwa *nindādisō'kä* "I tell", *ādisō'kan* "tale, fable", *ādisōhkäwin* "tale telling", Abnaki (Rasles) *antrs'kan* "fable", Penobscot (Speck) *ndatlo^{o}-kʌgan*, "my story". Since **'θ* and **'l* fall together in so many languages, it is frequently impossible to tell whether **'θ* or **'l* should be set up in any given case: the evidence of Cree (including the dialects), the Eastern group of Algonquian languages, and Delaware is decisive as the sounds under considerations are kept apart in them. So it is that terminal **-'ci* is useless, because, as is generally known, **-'θ* and **-'l* both "go" with **-'ci*. A case in point is **mē'ci-* "hairy, fuzzy," which is well-attested by Arapaho *bīsi-*, Cheyenne *i'momi'šiyu'ht*^{a1} "he, she has hairy legs", based upon **u+*māmē'cikātä* (Ojibwa *-gādä-* "leg;" etc.), Fox *mī'ci-*, Menomini *mī'si-*, Ojibwa *mīci-* (which has been apparently extended over its proper sphere); but Fox *mī's-* and Ojibwa *mīs-* postulate either **mē'θ-* or **mē'l-*; nor does Cheyenne *mi'h-* (*imi'hov*^{a}, based upon **u+*mē'θ-*, **mē'l-+*awä-* [Ojibwa *-awä-* "fur"]) help us: the archetype is at present indeterminate. I have recorded Cheyenne *iōi'u'hk*^{u} "it is bitter" which is based upon **u+*wē'sakʌn(e)* or **wē'sakyā*, Cree *wīsagisiw* "he, she is bitter", *wīsagan* "it is bitter" (based upon **wē'sakanwi*), Menomini *wē'sakesiw*, Natick *wesogkon* "bitter", Ojibwa *wīsagizi*, *wīsagan*, *wīsagā* [the last two are inanimate and are based upon **wē'sakanwi*, **wē'sakyāwi* respectively]; since *s* becomes *h*, we should expect **'s* to become *'h*. — Proto-Algonquian **l* becomes *t*; this *t* appears as *ts* before *i* corresponding to Proto-Algonquian *ι* even if the *i* is subsequently lost; a preceeding *i*-vowel does not change this *t* to *st*, barring the combination **-yälι* which apparently yields *-(i)sts'*; the combination **-lwi-* seems to become *-si-*. Examples follow: Proto-Algonquian **nemelāmekwa* "he smells me", Fox *nemenāmegwa*, Cree *miyāmēw* "he, she smells him, her" (derived from **melāmäwa*), Ojibwa *mänāmād* "he, she who smells him, her" (derived from **mälāmāta*), Cheyenne *naʉ̃a'u'm*^{ma} "he smells me"; Proto-Algonquian **nemelwälemāwa* "I admire, like him, her", Fox *nemenwänemāwa*, Cree *miywēyimēw* "he, she likes him, her" (derived from **melwälemäwa*), Cheyenne *nama'htata'm*^{mu} "I think well of him, her"; Proto-Algonquian **cawäle-m-* "take pity upon, have mercy upon", Menomini *sawä'nimikutua'* "they were pitied by" (Bloomfield's Texts, p. 4; note the interesting nominal derivative *usāwä'nimikō'wisēwin* "his, her supernatural blessing", ibidem), Ojibwa *kigīcawänimiwābaŋ* "you [pl.] have taken pity upon me in the past" (Jones' Ojibwa Texts, II. 74. 7), *ningīcawänimigobaŋ* "he took pity upon me in the past" (ibidem, II. 100. 16), *kācawäni-*

[1] Proto-Algonquian **'ci* becomes *'xi* if preceeded by original **e* (Cheyenne *a*), but *si* if preceeded by *e* derived from **uku*, **'cē* becomes *'ši*, **ē'ci* becomes *iši*. Thus, Proto-Algonquian **meθe'ciwaya* "somebody's testicle", Cree *mitisiway*, Menomini *ninä'siway* "my testicle" (**meθe'ciwaya*; **'c* is demanded by the remote Fox and Ojibwa cognates), Cheyenne *maʉ̃a'xi'v*^{utsc}; *e''simisi* "he, she fears to eat", based upon **u+*ku'cimētci*; **ku'ci-* comes from earlier **ku'θ-+-i-*, witness Menomini *ko'new* (see above); cf. Fox *ku'cinu* "fear thou me" which demands **'c*; Cree *mītci-* "eat," Fox *mī^{q}tci-*, etc.; Proto-Algonquian **cē'cēpa*, **cē'cēpaki* "duck, ducks," Arapaho *šīšītc' šīsiko'θ*, Cree *sīsīp*, Menomini *sē'sip*, Fox *cī'cīpa*, *cī'cīpagi*, Cheyenne *ši''š' šī'šiyo'^{u}*.

migut "the one by whom he was blessed" (ibidem, II. 100. 19), Algonkin *cawänim* "have (thou) pity upon him", Cree *sawēyimēw* "he, she has pity upon him, her", Cheyenne *nasivaĕa'mᵐᵘ* "I pity him, her"; Proto-Algonquian **wēlenwi* "fat", Fox *wīnenwi*, Ojibwa *wīnin*, Cree *wīyin*, Arapaho *nīne'n*, Cheyenne *vi'ĭᵘ*; Proto-Algonquian **ulākani* "dish, vessel", Menomini *unākʌn*, Ojibwa *unāgan*, Fox *anāgani* (with secondary *a-*; pl. *anāganani* derived from **ulākanalı*), Cree *uyāgan* (*uyākan* in Bloomfield's transcription), Cheyenne *hitu'hkᵘ* (pl. *hitu'hkunnutsᶜ*, derived from **ulākanalı*); Proto-Algonquian **ilenıwa* "man," Plains Cree *iyiniw*, Tête de Boule *iriniw*, Shawnee *hileni*, Menomini *inänıw*, Ojibwa *inini*, Arapaho *hinen*, Cheyenne *hĭĕanⁿᵉ*; Proto-Algonquian **mē-l-* "give to", Cree *mīyēw* "he, she gives to him, her", Fox *mīnäwa*, Ojibwa *mī-n-*, Arapaho *bī-n-*, Cheyenne *nahɛhpimi'ĭᵘ* "I give him too much" (based on **netumpimēlāwa*; intercalated **-t-* is analogically levelled out of existence in Cheyenne verbs; for **umpi-* cf. Ojibwa *umbi-*, Cree *uhpi-*, Fox *upi-*: the meanings "up" are more original than the Cheyenne correspondent; **mp* appears as *hp* in Cheyenne, thus *ivi'hpᵘ* "it is hollow", derived from **u*+**wēmpyā*, Cree *wīhpāw* "it is hollow", derived from **wēmpyāwi*; Algonkin and Ojibwa *wīmb-* "to hollow"; the Cheyenne and Cree words require **-mpy-*, not **-mp-*, in accordance with general Algonquian linguistic principles, nor does this violate their phonetic shifts); Cheyenne *vo'vᵘtsᶜ* egg, derived from **wāwalı*, Cheyenne *vo'vuᵗᵘtsᶜ* "eggs", derived from **wāwalalı*; cf. Fox *wāwani*, *wāwanani:* yet (as Cuoq saw years ago) Cree *wāwi*, Algonkin *wāw* (both meaning "egg") postulate Proto-Algonquian **wāwi* which demands a plural **wāwalı* which is reflected by Algonkin *wāwan*; this plural came to be felt as a singular and a new plural was based on this, which state of affairs is reflected by Fox and Cheyenne; Ojibwa *wāwan* "egg" shows the plural form used as a singular, but has a different analogical plural, *wāwanōn*. Cheyenne *vutu'nstsᶜ* "tail-feathers of a bird" presupposes an archetype **waθanyălı*; since **yä* between consonants appears as *i*, an intermediate stage **vutu'nistsᶜ* is implied; a plural **waθanyälı* presupposes a singular **waθanı* rather than **waθani* (Cree *watani*, Cheyenne *vu'ĭᵘ* could be derived from either; Algonkin and Ojibwa remote cognates with *n*, not *t*, prove Proto-Algonquian **θ*, not *t*): this is a matter of common knowledge, established years ago by Bloomfield, and so does not have to be proved here.

Shifts of Proto-Algonquian **p:* in the 28th Ann. Rept. Bur. Amer. Ethn., p. 233 I suggested that **p* was lost in certain positions in Cheyenne. Later, in the American Anthropologist, N. S., 15, pp. 538, 539 Sapir declared it a regular shift adding, "Initial *p*, however, seems to have remained in Cheyenne at least in some cases." He gives one etymology to back this last, which etymology is untenable in view of present day knowledge of Algonquian morphology and Cheyenne phonetic shifts. It should be said that at the time the amount of Cheyenne linguistic material published was not large, nor was it of a high quality. Sapir gave five additional examples to show the loss of **-p-*, of which one (*ohe* "river") is doubtful, for it violates known Cheyenne shifts, even if the supposed metathesis is correct[1]. As a matter of fact my own unpublished material at the time indicated the loss would have to be circumscribed very carefully, and it showed that medial **p* was retained at times. My recent Cheyenne material shows that the whole situation is very complex; at times medial **p* is not lost; at times it is replaced by a glottal stop; a

[1] Sapir's comparison of Cheyenne *-ōva* "water" with Cree *-ābawa* "by water" (the source is unknown to me) is substantially correct even though the Cree word is not the precise phonetic equivalent of the Cheyenne one; Algonquin *-âbâwe* (taken from Lemoine; presumably *-āpāwä*) with the same meaning is the precise phonetic equivalent. I may add that *-abawe* is given by Cuoq.

glide may replace it; contractions may occur; the preceeding or following vowel may be lengthened with high tone. Since **k* is for the most part also lost, though the detailed history is complex, and high tone at times accompanies such loss, occasionally it is impossible to know to which phenomenon the long vowel and high tone are due (it will be noted that all original long vowels are regularly shortened in Cheyenne; all long vowels are of secondary origin). Thus, *naō'm*^{mu} "I strike him, her" is derived from **nepakamāwa* (Fox *nepagamāwa*). Similarly at times the etymology of any given word is largely disguised, thus, *naimō'm*^{mu} "I see him, her secretly", derived from **nekēmāpamāwa*, cf. Cree *kīmāpamēw* "he spies him, her", derived from **kēmāpamāwa*. I give briefly the history of original **p* in Cheyenne so far as it is known to me:

**p* becomes *p̄* between Cheyenne *a* and *î*, thus, *nap̄î'n*^{nu} "I crush him, her", derived from **nepōxkunāwa*, cf. Cree *pōskunam* "he breaks it with his hand", Fox *pō'kunamwa*, Menomini *pōhkunam*. (Cheyenne *î* is long and open; it is always the result of contractions.)

**p* in the original combinations **-āpi-*, **-āpō-*, **-āpu-*, **-epe-* (when the first **e* is not in the initial syllable of a word), **-epi* becomes *hp*. Thus, Proto-Algonquian **wāpi-* "white", Fox *wâpi-*, Cheyenne *vuhpi-*; Cheyenne *hohp*^{i} "soup", cognate with Algonquin (Lemoine) *apâbówâte* "le potage est fait", Fox *-āpō(wi)-* "fluid," cf. also Cheyenne *e'hohpiv*^{i} "it is soup"; Cheyenne *na's*^{u}*suhpi'š* "I cut my way through", derived from **necacāpuco* (the knowledge of ordinary principles of Algonquian word-formation is presupposed), Fox *cāpu-* "through", Cree *sāpu-*; Cheyenne *š* is secondary for *s*; I do not know whether in Cree or Fox the corresponding instrumental particle can be used with this stem but it exists otherwise in both; Cheyenne *na'hahpa'n*^{na} "I close it", derived from **nekepenäni*, cf. Cree *kipinam* "he shuts it with his hand", Fox *kepi-* close, etc.; Proto-Algonquian **nepi* "water", Fox *nepi*, Cree *nipi*, etc., Cheyenne *màp* (Petter; ` = *h*) with *m-* for **n-*, an assimilation.

**p* becomes a glottal stop (') in the original combinations **-apa-*, *-apā-*, *-ape-*, **-api-*, **-api*, **-āpa* (when the **a* appears as final *u* in Cheyenne), **-äpā-*, **-epā-*, **-epe*, **-epi-*, **-ēpi-*. Thus, *eyo'omi'hn*^{ns} "he passes by", derived from **u+*papām-*, Cree *papāmuhtēw* "he walks about, wanders", derived from **papāmuhθäwa*, cf. Ojibwa *babamosse* given by Baraga, Fox *papāmi-* "indefinite motion" (tempting as it is to derive *eyo'omi'hn*^{ns} from **-uhθä*, Fox *-u'sä-*, *s* for **ä* is unparalleled; *a* would correspond exactly to **-ä*; *-ihn*^{ns} "walk" is extremely common in Cheyenne); *naho'xo'a'n*^{nu} "I make one to be pressed", derived from **ne(t)axpapenāwa* (in verbs intercalated **t* is regularly analogically levelled in Cheyenne; the compound **axpapi* has representatives in several Algonquian languages with its etymological meaning "sit upon"; I do not recall the *n* instrumental occuring with correspondents to **api-* in other Algonquian languages, but it is very common everywhere: in this case it is highly probable that Cheyenne has an innovation; at any rate **apih-* is the archetype of the common transitive form); *naho'xo'ēto'v*^{u} "I sit near him, her", derived from **ne(t)axpapiθawāwa* (why we have *navistōm*^{mu} "I sit with him, her", derived from **newētapimāwa*, Cree *wītapimēw* "he, she sits with him, her," derived from **wētapimäwa*, is unclear to me); *nahō'*^{s} "I sit" derived from *ne(t)api*, Fox *netapi*, etc.; *naum*^{u}*htō'*^{s} "I sit up", derived **neθamatapi* (to judge from Lemoine Algonkin has an exact equivalent but the precise phonetic restoration is a little uncertain; however in accordance with the general principles of Algonquian linguistics **θamat-* had an alternate **θamatci-* which is firmly established especially by Arapaho *θo'waθinǫ* "I arise", derived from **θamatciyäni*, and Cheyenne *iîu'mh*^{u}*siyō'*^{s} "he stands erect", derived from **u+*θamatci-*; *-yō'*^{s} "stand" is very common in Cheyenne and goes back to **-kāpi* or something close to this; Ojibwa,

etc. have correspondents with initial *n* to **θamatci-*: *n* is of more than one origin in these languages; but Arapaho initial *θ* settles the matter; Cheyenne *naĭumᵘhta'nⁿᵃ* "I erect it" is derived from **neθamatenäni*); *naĭa'o'ma'o'vᵘ* "I head one off", derived from **netäpämeckawäwa* (cf. Cree *pimiskawēw* "il traverse son chemin", derived from **pemeckawäwa*; Proto-Algonquian **pem-* and **päm-* frequently interchange functions in Cheyenne; *-ta-* is a common formative element in Cheyenne verbs, and phonetically corresponds exactly to Ojibwa *dé* given by Baraga with the meaning "a particle which is prefixed to verbs or number in order to signify, *enough, sufficiently, quite*" which fits the present Cheyenne case nicely); *ini"-hoviyō'ᵉ* "he is standing up", derived from **u*+**nēpāwi* **[nepawi?]*+**kāpi* (cf. *-neove-* "standing," cited by Sapir, loc. cit., from Petter), Cree *nīpāwiw* "he, she stands", restored on the basis of Lacombe's *nibâwiw*, *nipâwiw*, Watkins *nepowew*; Lacombe often does not mark a long vowel, but rarely marks a short vowel as long; Watkins regularly records *-ew* where Bloomfield has *-iw*; Watkins almost invariably writes *e* where *ī* is the standard transcription, but always *e* before *y* whether justified etymologically or not: but from the notes of the Rev. Dr. Cooper I think it likely dialectic variation occurs; before *y* Bloomfield always writes *i* whether justified by etymology or not; Ojibwa *nibâwiwin* "standing" (abstract noun), given by Baraga, also supports long *ā*; the Ojibwa participle *nâbawid*, also given by Baraga, ensures *ī* in the independent mode, for such is the regular vocalic variation in the participle; *ī* is confirmed by Algonkin *nîpäwiton*, cited by Lemoine, "mettre debout"; but *ä* indicates a very short *a*: whether this is real and made after the analogy of *-kâpäw-* where it is justified, or coined by Lemoine in error, I do not know[1]; Natick *neepau*, *neepoh* "he stands, holds himself erect" postulates Proto-Algonquian **nē-*; Cheyenne *'h* is secondary for *'*: cf. *nāivʰᵃ* "I return", derived from **nekēwä*, Fox *nekīwe*; Cree *kīwēw* "he returns", **kēwäwa*; for Cheyenne *-yō'ᵉ* "stand", see above and below); *tsi"tanā'ᵉ* "he will die" (for *ta* see *ta* above; the glottal stop causes a different treatment; note the contrast in *i'nāyutsᵉ* "one dies", *nāivha'nⁿᵉ* "death" [Fox *nepoweni*]; all things considered it is plausible that *-nā'ᵉ* in the word under discussion represents **-nepe* which in Proto-Algonquian times replaced **-nep* [Fox *nepwa* "he, she dies"; *nīᶜnepe* "let me die", *kīᶜnepe* "you will die"] and in certain other positions [Fox *nepeᵈtce* "may he die", *äᶜnepeniᵈtci* "then the other died", Menomini *nä'piyan* "when I die;" in Cree *nipi-*, **nepe-*, is widely extended for *nip-*, **nep-*]; but more than this can not be said, for in Proto-Algonquian times there was a doublet **nepǒ*, and this may have been extended, but the precise sphere of **nepǒ* is as yet unknown; I lack phonetic restorations of certain Cheyenne words given by Petter which would settle the point at issue); *na'tᵃtā'ivōyō'ᵉ* "I am standing looking around in a circle", derived from **netehtepiwāpikāpi* (or something very close to this); cp. Cree *tihtipi* "circle", which is supported by Bloomfield, Lacombe, and Watkins; the Fox form is *tetepi*; to judge

[1] Menomini *nēpuwi-* occurs so frequently (see Bloomfield's Menomini Texts, PAES. XII, pp. 32, 88, 92, 94, 206 etc.) that is must be considered as the normal orthography; it can hardly justify an original long vowel in the second syllable: apparently it agrees with *-kāpuwi-* "stand"; I have not enough examples from Jones's Ojibwa Texts, PAES VII, to be positive of the normal form in that language, barring initial *nī-*. If *nīpawiwak* "they stood" on p. 32, Sacred Stories of the Sweet Grass Cree, Bulletin, No. 60, Anthropological Series, No. 11, National Museum of Canada, is the normal orthography (*nīpawiw* "he stood" is on p. 33; I do not chance to have jotted down other references which doubtless exist), then either Lacombe and Baraga are in error, or there are dialectic differences. If *nīpawi-* is correct presumably Proto-Algonquian **nēpawi-*, not **nēpāwi-*, is the archetype. In that case notice the different treatment of medial **-ēpa-* and terminal **-ēpa* which is lost in Cheyenne.

from Jone's Ojibwa Texts from the very few examples I have at my disposal it would seem as if *titibi-* was the normal Ojibwa form (which would correspond exactly to the Fox form), but Baraga gives *titibi-*: ordinarily medial *t* is used by Baraga to denote *'t* [which form then would correspond to Cree *tihtipi*]; unfortunately the normal pronounciation of the correspondent can not be determined in Menomini from the evidence contained in Bloomfield's Texts, for although internal evidence shows that he is ordinarily very careful in recording *t ht 't* consistently, in this particular case apparently both *tä'tip-* [this more frequently] and *titep-* [the vocalic variations are not of importance] are found; similarly *mäts-* "huge" is of almost universal use, but *mä'ts-* occurs rarely; Natick *tatupp* of course belongs here, but the exact interpretation is not easy owing to the deficient orthography of Eliot; *vō* may be derived from **wāpi*, with an irregularity similar to that in *navistōm^{mu}* "I sit with him, her", noted above: yet it is possible that **wāpa* has been extended analogically; phonetically this would seem better; on *-yō'$^{\varepsilon}$* "stand", see above and below; Cheyenne *vē's* "tooth", derived from **wēpitci*, which was analogically extracted from **uwēpitci* "his, her tooth", Fox *uwīpi^{a}tci*, etc. [in Cheyenne, *vē's* has extended *s* where not etymologically justified]; Cheyenne *na'šohpō'^{u}* "I see through", derived from **necāpwāpa*, with analogical **-āpa* for **-āpi* (which would have yielded *-ō'$^{\varepsilon}$*), cf. Cheyenne *našohpōm^{mu}* "I see through him, her", derived from **necāpwāpamāwa*, Cree *sāpwāpamēw* "he sees through him, her", derived from **cāpwāpamāwa*, Fox *cāpu-* "through", etc.

p* in the combinations of original **-ēpa-*, (also **-ēpā-?*), **-ēpe-*, **upa*, *upā-*, **upe-* appears as *y*. Thus, Proto-Algonquian **cē'cēpaki* "ducks", Arapaho *sīsīko'*, Fox *cī'cīpagi*, Menomini *sē'sipʌk*, Cheyenne *šī'-šiyo'^{u}*; Proto-Algonquian **tcēpayaki* "corpses", Fox *tcīpaiyagi*, Cheyenne *si'yut^{u}*; compare Arapaho *θīk^{u}*, Fox *tcīpaiya*, Menomini *tsē'pay* which are all derived from **tcēpaya* (Cheyenne $^{n}asi'yutam^{n\varepsilon}$ "my dead" is a new-formation as shown by Fox *netcīpā'menāna* "our corpse"); Cheyenne *nā'sasiya'n^{na}* "I stretch it" (not, "unfold it"), derived from **nececēpenäni*, cf. Fox *cīp-* "stretch," Cree *sīp-*, Algonkin *cīp-* (Lemoine; with *n* instrumental), cf. Natick *sepe* (especially in compounds); Cheyenne *eyo'omihn$^{n\varepsilon}$* "he passes by", derived from **u*+papām-*, cf. Cree *papām-*, etc. (though it is tempting to derive *-ihn$^{n\varepsilon}$* from **-uhθä* [Cree *-uhtē-*, Fox *-u'sä-*], it is hard to justify this phonetically); Cheyenne *eyu'hto'an$^{n\varepsilon}$* "he errs in utterance", derived from **u*+**pat-*, compare Cree *patowēw*, **patowäwa*, "he makes a mistake in speaking" (Proto-Algonquian **t* [not **θ*] is proved by Cree *patci-*, a normal doublet of **pat-*, which must go back to **patci-*: now the doublet going with **paθ-* would be **paci-* as demanded by known facts of Algonquian linguistics; *-*owä-* is faithfully reflected in Cree, Fox, etc.; Cheyenne *-o'an$^{n\varepsilon}$* "utterance" is extremely common, but I do not know its exact archetype); Cheyenne *e'yo'x^{u}* "it bursts open," derived from **u*+**pāckyā* (knowledge of the ordinary principles of Algonquian languages are presupposed; cf. Cree *pāsk-* [= **pāck-* with which **pāxk-* falls in Cree owing to the operation of recognized phonetic shifts] "bursts", Algonkin and Ojibwa *pāsk-*); Cheyenne *eyahaht^{a}* "he listens to it", derived from **u*+**pesentäni* (I lack a Menomini cognate and so can not be absolutely positive that the archetype contains *s*, not *hs*; Fox *nepe'set^{a}* "I listen to it", Ojibwa [Baraga] *ninpisindân*; Cree *pisitcitam* "he listens to it" is more remotely connected; Algonkin *pizindan*, cited by Lemoine, supports **pes-* as opposed to **pehs-*: but more than this can not be said). Obviously Cheyenne *i'nāyuts'* "one dies", belongs here, and is clearly based upon **u*+**nepe* (Fox *nī'nepe* "I shall die," *nepwa* "he dies"; in Cree *nipi-* [**nepe*] has been generalized; cognates occur in widely spread Algonquian languages), but

the terminal *-utsᶜ* is obscure, though it occurs in other Cheyenne words.

Initially **p* is lost before original **e* and **ō*; terminal **-ēpa* is lost; medial **p* is lost in the combinations of original **-epa-*, **-epā-*, **-epo-*, **-epō-*, but contraction does not take place. Thus, Proto-Algonquian **pemi* "grease", Fox *pemi*, etc., Cheyenne *a'mᵐᵉ*; Proto-Algonquian **pōni-* "cessation", Fox *pōni-*, Cree *pōni-* etc., Arapaho *tcīn*, Cheyenne *eɔ*; Proto-Algonquian **cē'cēpa* "duck", Cree *sīsīp*, Fox *cīᶜcīpa*, Menomini *sē'sip*, etc., Arapaho *sīsītcᶜ*, Cheyenne *šiʹʹš*; Proto-Algonquian **nepasekwi* "I arise", Fox *nepaᶜsegwi*, Cheyenne *na'ohā''ᵉ*, cf. Cree *pasigōw* "he arises", derived from **pasekwiwa*, Fox *paᶜsegwīwa*, Proto-Algonquian **nepakamāwa* "I strike, beat him, her", Fox *nepagamāwa*, Cheyenne *naō'mᵐᵘ*; Cheyenne *na'uhsimᵐᵘ* "I misallege concerning him, her", derived from **nepatcimāwa*, cf. Cheyenne *nāu'hto'anⁿᵉ* "I mispronounce" (*-o'anⁿᵉ* "utterance" is common in Cheyenne), **nepat-*, Cree *patci-* "wrongly", *patowēw* "he, she makes an error in speech", derived from **patowāwa* (**-owā-* has representatives in many Algonquian languages); Cheyenne *nanāutsᶜ* "I sleep", based upon **nenepā*, Fox *nenepa* (**nepā-* has been largely extended at the expense of **nepā-* in Cree, Algonkin, and Ojibwa; I established the variation years ago); *nā'uxanⁿᵃ* "I break it open with my hand", derived from **nepāckenäni*, if an error for *nā'u'xanⁿᵃ* (I can not justify the derivation from **nepāxkenäni* owing to phonetic difficulty), cf. Cheyenne *e'yo'xᵘ* "it bursts open", etc. discussed above; Cheyenne *na'o'sinⁿᵘ* "I cut him, her open in the belly", derived from **nepāxketcyänāwa*, cf. Fox *pōᶜkeᵃtcäᶜcwäwa* "he, she cut him, her open at the belly", derived from **pōxketcyäcwäwa*; Menomini *-itsī-* "belly", Algonkin and Ojibwa *misidjī* "dropsical" ("big-bellied"), derived from **me'θetcyä;* Proto-Algonquian **pōxk-*, Cree *pāsk-*, Fox *pāᶜk* "open", etc. (as shown years ago by Bloomfield, only **yä* will satisfy the requirements of Fox *ä*, Menomini, Ojibwa *ī*; **yä* after consonants becomes *i* in Cheyenne, thus, Proto-Algonquian **axkyälı* "lands", Fox *aᶜkyäni*, Cheyenne *ho'i'sᵗˢᶜ*; Proto-Algonquian **axkı* "land", Cree *aski*, Fox *aᶜki*, Cheyenne *ho''ᵉ*); Cheyenne *nā'ōminō'tᵘ* "I pass and leave him, her", derived from **nepapāminakabāwa*, Cree, Kickapoo *papāmi-*, etc. "indefinite motion", Fox *nenaganāwa* "I abandon him, her", Cree *nagatēw* "he, she abandons him, her", **nakabäwa*; Proto-Algonquian **nepoweni* "death", Fox *nepoweni*, Cheyenne *nāivhanⁿᵉ*; Cheyenne *ēšenāe* (from Petter) "he, she is dead", derived from **u-*kēci+ *nepōhi*, cf. Fox *nepōhīwa*, derived from **nepōhiwa*, Fox *kīᶜci-*, Menomini *kēs-*, etc.; Cheyenne *nāe''ᵃ* "I break it with my foot", derived from **nepōxkuxkäni*, cf. Cree *pōskuskam* "he bursts it by treading on it", derived from **pōxkuckamwa*, Ojibwa *ninbokoshkan* (Baraga) "I break it", Menomini *pōhkunam* "he breaks it with his hand", etc. (it is impossible to give an exact Fox equivalent to Cree *pōskuskam* without an informant at hand, for internal evidence shows that the variations given in Jones's Fox Texts [see 14. 5, 14. 8, 24. 22, 24. 23, 24, 24. 27] can not be relied upon; with the *n*-instrumental I chance to recall *pōᶜkunāᶜsa* "he might break it"), Menomini *pōhkuskam* "he breaks it with his foot"; *nā'owax* "I dream", derived from **nepāwāco*, cf. Cree (Lacombe) *pāwātēw* "he, she dreams of him, her", derived from **pāwāθäwa*, also Cree *pāwāmiw* (Lacombe) "he, she dreams", Ojibwa (Baraga) *ninbawâna* "I dream of him" (which is difficult to judge, for the participial *bewânad* demands *a* in the initial syllable, not *â*; similarly Bloomfield records *nipawāĸanitik* "my dream guardians!" as opposed to Lacombe's *pâwâgan;* the instrumental *n* comes from **θ* without difficulty), Menomini as *pawā'tsiket* (Bloomfield, Menomini Texts, 6) "to see a vision"; Cheyenne *na'pōi'niš* "I fall against the ground", is derived from **nepañkihcine* (cf. Cree *pahkisin* "he falls", derived from **pañkihcinwa*; Ojibwa [Baraga] *ninpangishin* "I fall, derived from **nepañkihcine*, Meno-

mini *isēhsin* "he lies thus," derived from **icihcinwa*) and shows a different treatment owing to the loss of **-ñk-*.

p* is lost in the combinations **-api-*, **-āpa-*, **-āpe-*, **-epe-* (when the first *e* is in the initial syllable), **-epē-*, **upē-* and the vowels contract. Thus, *navistōm^{mu}* "I sit with him, her", derived from **newētapimāwa*, Fox *newītapimāwa*, cf. Cree *wītapimēw* "he, she sits with him, her", derived from **wētapimāwa*; *naimō'm^{mu}* "I see him, her secretely", derived from **nekēmāpamāwa*, cf. Cree *kīmāpamēw* "he, she sees him, her secretly", derived from **kēmāpamāwa*; cognates exist in several Algonquian languages; *na'tā'o'v^{u}* "I fit it on", which is idiomatically used in the sense "it fits me," derived from **netäpeckawāwa*, Cree *tēpiskawēw* "it fits him, her", derived from **täpeckawäwa*; cf. Ojibwa (Baraga) *nindêbishkan* "I can put it on easily", derived from **netäpeckāni (?)*; **ck* commonly becomes ' between vowels in Cheyenne; normally **ä* appears as *a* in Cheyenne, terminally ^{a}, thus, *ịʏo''t^{a}* "it sets", derived from **u*+a'tä*, cf. Cree *astēw*, Fox *a'täwi*, both derived from **a'täwi*: it will be recalled that "intercalated" **t* in Cheyenne verbal forms is completely wiped out analogically; *itaxiyō'$_{e}$* "he stands upon", derived from **u*+**tähcikāpi* (for *-kāpi-* see above); **tähci-* is a normal doublet of **tähθ-* in accordance with the principles established by myself and Bloomfield; **tähθ-* is guaranteed by Cree *tēhtapiw* "he is seated upon", derived from **tähθapiwa*; **tähθapi-* is also demanded by Ojibwa *tesab (nin)* "I am sitting on", cited by Baraga; Cree *tēhtci-* is analogical in the same way as Cree *nīhtci* "down", on which see IJAL, VIII, pp. 41, 42 (the history of **hc* in Cheyenne is dependent upon the quality of the adjacent original vowels, and so we have *x*, *š*, and *s*; the last two are due to palatalization but I have not been able to formulate a rule segregating them; *š* is more common, e. g., *i'siš* "he, she is lying down", derived from **u*+**ceñkihcine*, cf. Fox *cegi'cinwa*, Menomini *sehkēhsin*, Ojibwa *ciñkicin*, all derived from **ceñkihcinwa*; I can not quote off hand an exact Cree equivalent, but note Cree *sihkisimēw*, Fox *cegi'cimäwa* "he, she lays him, her down", both derived from **ceñkihcimäwa*, and Cree *pahkisin*, Fox *pagi'cinwa* "he alights (of a bird), falls", both derived from **pañkihcinwa*); Cheyenne *nā$_{a}$'ta's^{u}* "I accidently cut him, her", derived from **nepe'tecwāwa*, cf. Fox *nepe'te'cwāwa*, Cree *pistiswēw* "he, she accidently cuts him, her", derived from **pe'tecwäwa*; *nā$_{a}$mi'st^{a}* "I shoot it", derived from **nepemutäni*, cf. Fox *nepemuta*, Cree *pimutam* "he shoots it with an arrow", derived from **pemutamwa*; *nā$_{a}$mahto'v^{u}* "I obey him, her", derived from **nepemehtawāwa*; it should be pointed out that in Cheyenne **pem-* is often extended at the expense of **papām-*; both Algonkin and Ojibwa have correspondents to this last with equivalent instrumental particles (similarly Cheyenne *nā'$_{a}$ma'o'v^{u}* "I impell him, her" is derived from **nepemeckawāwa*); *nā$_{a}$'ka'n^{na}* "I round it", derived from **nepexkenäni* which is analogical for **nepexkun-* (which is supported by Fox *pe'kwi-* "cluster," Cree *piskwāw* "it has a lump", Ojibwa *pi'ku-* "hump, knob"; the **-en-* instrumental is well-known, and its combinations); I have written *ā$_{a}$* because the long *ā* (with high tone) distinctly gives the impression of a long vowel followed by a weak voiced, not voiceless, one; Cheyenne *ịya'ka'n^{na}* "he rounds it", is derived from **u*+**pexkenäni*; *naišta'n^{na}* "I make it enter", derived from **nepēntenäni*, cf. Cree *pīhtinam*, Menomini *pēhtenam* "he puts it inside by hand", both derived from **pēntenamwa*; **-nt-*, not **-ht-* is guaranteed not only by Fox *pīt-*, but more clearly by Ojibwa *pīnd-* (the correspondence of Fox *-t-* to Cree and Menomini *-ht-* demands an archetype **-nt-* and this alone); Cheyenne *e'ta'v^{u}* "foam", apparently a verbal form in origin, **upē'täwā*, per contra Cree *pīstēw*, Menomini *pē''tew*, "foam", Natick *pehteau* "froth", all derived from **pē'täwi*. An exaggerated case of contraction is to be seen in

histstō'^{u} "his jaw" which is derived from **ututāpixkani*, an analogical formation based upon **utāpixkani* "his jaw,"[1] which however in Cheyenne means "jaw", cf. Cheyenne *hi'st^{a}* "heart," derived from **utāhi* (Fox *utā'ᵋi*) "his, her heart"; for **utāpixkani* cf. Cree *mitāpiskani* "somebody's jaw", derived from **metāpixkani*; Kickapoo *utā'pigăni* (in the late Dr. Jones's MSS.) then is an error for **utāpi'kăni*; normally original **u* becomes *i* in Cheyenne, and has the same effect on preceeding and following **t* etc. as original **i*; occasionally it is lost. Cheyenne *naho'-xo'ēto'v^{u}* "I sit close against him, her" is derived from **netaxpapiθāwa* is treated above; clearly the exact conditions for contraction are not known with precision.

The history of **p* in the combination **-mp-* is clear: it becomes *-hp-*. Thus, *na'vihpa'n^{na}* "I hollow it", derived from **newēmpenāni*, cf. Ojibwa *wīmb-* "hollow", Cree *wīhpahamwa* "he hollows it", derived from **wēmpahamwa*; the instrumentals **-en-* **-en-* are well-known; *ivi'hp^{u}* "it is hollow", derived from **u*+**wēmpyā*, cf. Cree *wīhpāw* "it is hollow", derived from **wēmpyāwi* (knowledge of the established principles of Algonquian word-formation is presupposed, and of the simpler phonetic shifts in Cree; in the same way Cheyenne *ihi's^{u}* "it is from there" is derived from **u*+**untcyā*, cf. Fox *u^{a}tci-* "from", Cree *uhtci-*, Ojibwa *undji-*, Menomini *uhtsēmow* "he calls out from there", derived from **untcimowa* in accordance with Menomini phonetic shifts); *hista'hp^{e}* "brain", derived from **utempi*, Cree *utihp*, Delaware (Brinton) *w'tumb*, Kickapoo *utepi*, cf. Fox *-tepä-* "head", derived from **-tempä-*.

The history of *-hp-* is uncertain. I know but one word where possibly this combination may have existed, namely, *na'via'm^{mu}* "I sleep with him, her". According to Bloomfield's line of reasoning the archetype would be **newēxpämāwa*; then Cree *wīhpēmēw* (and the Montagnais correspondent) must be an Ojibwa loan-word (see Michelson, IJAL, VIII, p. 40); but Delaware *wipentin* "to sleep with one another", cited by Brinton, is not very favorable to this, and rather tends to support **wēhpä-*: more than this can not be said; Fox and Ojibwa *wī'pä-m-* are wholly indecisive.

The history of **xp* is none too clear. Observe *ma'a'hts'* "somebody's arm", derived from **mexpetuni*, Cree *mispitun*, Natick *muhpit* (different in the posterior portion), cf. Cheyenne *na'ahtsi'n$^{nuts'}$* "my arms", derived from **nexpetunalı*; but on the other hand note *na'pa'^{u}* "my back", derived from **nexpexkwani*, Cree *nispiskwan* (several Algonquian languages apparently have extended the initial *p* of **-pexkwanä-* "back", e. g., Kickapoo *nepe'kwani*). Note also *naho'xaĭam^{mu}* "I am close to him, her in friendship, acquaintance", presumably derived from **ne(t)axpälemāwa*; it will be recalled that the "intercalated" **t* is analogical wholly ousted in Cheyenne verbs; Cree *aspēyimōw* "he hopes, he trusts", **axpälemowa*, Cree *aspēyimēw* "he thinks that he trusts", **axpälemäwa*, Fox *a'pänemōwa* "he puts his faith in, he relies upon", Algonkin *a'pänimō*, **axpälemowa*; the Cheyenne word has a specialized meaning; note also *naho'-xo'ēto'v^{u}* "I sit close against him, her", derived from **ne(t)axpapiθāwa*: see above. [In connection with *naho'xaĭam^{mu}*, note *na'šivaĭa'm^{mu}* "I pity him her", derived from **necawälemāwa*, cf. Cree *sawēyimēw* "he, she blesses, has mercy upon, him, her", **cawälemäwa*, Menomini *as sawänimikutua'* "for they were blessed by them", **cawälemeku-*.] Finally note *he'u'hk^{u}* "pipe", derived from **uxpwākana*, Cree *uspwāgan*, Ojibwa *u'pwāgan*.

The history of **cp* is fairly clear. Normally between vowels it appears as '. Thus *he'a'm^{ma}* "up above", Arapaho *ixtcebe'*, Cree *ispimihk*, Fox *a'pemegi*, Ojibwa *icpimiñg*, Proto-Algonquian archetype **icpemeñki*. The combination **icpi* has a little uncertain treatment:

[1] I think now (June, 1934) it likely that all bodily parts ending in *-ō'^{u}* belong together; that this suffix arose phonetically and then was extended.

ee''ᵃ "he flies up" (with rhetorical *-a*) is derived from **u+*icpi'lä*; *ehe'ami''ha* "he flies up", is derived from **u+*icpipemi'lä*, cf. Menomini *pemē'new* "he flies along", Fox *pemi'säwa*, Ojibwa *pimisä*, Proto-Algonquian **pemi'läwa*; Cree *pimihāw* (analogical for **pimihēw*) is cited by Bloomfield, but the dialects differ in the treatment of *'l* as I know from published and unpublished material; Lacombe and Watkins demand *pimiyāw (pimīyāw)*; it is to be noted that Lacombe also gives *ispiyaw* "il vole haut", i. e., *ispiyāw*, analogical for **ispiyēw* (the great uniformity of Cree is unoriginal as shown by Bloomfield), **icpi'läwa*.

The Algonquian plural **-talı* levelled by the singular *-tci*. The Cheyenne word *vē's* "tooth" is based upon **wēpitci* which has analogically been extracted from **uwēpitci* "his, her tooth". Petter gives the plural *vesoz* which can be restored with practical certainty as *vē's^{uts}*. It does not take much knowledge of Cheyenne phonology to see that this can not be based upon **wēpitalı* which would be the regular plural to **wēpitci*. Very obviously a plural has been analogically formed to match the singular *vē's*.

Cree. — All the Cree shifts are well-known, and in their final formulation are due to Bloomfield. — Proto-Algonquian **θ* becomes *t*. Thus, Proto-Algonquian **iθäwa* "he, she says to him, her", Cree *itēw*, Fox *inäwa*; **Pwāθa* "Sioux", Cree *Pwāt*, Ojibwa *Bwān*; with Cree *patamisk* "young beaver", compare Fox *Ma'kwipana'cā'a* "Young Bear" (personal name). — Proto-Algonquian **'t* becomes *st*. Thus, Fox *ku'tamwa*, Cree *kustam* presuppose Proto-Algonquian **ku'tamwa* "he, she fears it". — Proto-Algonquian *'θ* becomes *st*. Thus, Proto-Algonquian **ku'θäwa* "he, she fears him, her", Fox *ku'säwa*, Menomini *ko'new*, Cree *kustēw*. [The evidence of Eastern Algonquian languages tends to show that some etymologies given with **'θ* really have **'l*.]

Menomini. — Proto-Algonquian **'t* remains *'t*. Thus, Proto-Algonquian **pe'tenamwa* "he accidentally touches it with his hand", Cree *pistinam*, Menomini *pe'tenam*; Proto-Algonquian **me'tekwi* "tree", Cree *mistig*, Menomini *me'tek*. — Proto-Algonquian **'θ* becomes Menomini *'n*. Thus, Proto-Algonquian **ku'θäwa*, "he, she fears him, her", Fox *ku'säwa*, Cree *kustēw*, Menomini *ko'new*. Both correspondences have been known a very long time, but in their formulation, giving the Proto-Algonquian archetypes, Bloomfield must be given credit. Incidentally I may note that Dixon's observation of the second correspondence (but *n* for *'n* in his material) on p. 22 of vol. 23, *American Anthropologist*, N. S., seems to have escaped all Americanists.

Peoria. — Initial *ny-* becomes *y-*. Thus Proto-Algonquian **nyālanwi* "five", Tête de Boule *niyāran*, Shawnee *nyālanwi*, Ojibwa *nānan*, Menomini *nianan*, Fox *nyānanwi*, Peoria *ya'lanwi* (Gatschet; Michelson's unpublished material backs initial *y-*). — Proto-Algonquian postconsonantal **yä* becomes *ī*, as also in Menomini and Ojibwa (pointed out by Bloomfield). Thus, Fox *pyäwa* "he comes", Peoria *pīwa*, both positing Proto-Algonquian **pyäwa*; note Ojibwa *nimbīnā* = Fox *nepyänāwa* "I bring him"; with Fox *pyätōwa* "he brings it", compare Cree *pētāw*; Proto-Algonquian **nyäwi* "four", Fox *nyäwi*, Peoria *nīwi*. Clearly then the change of postconsonantic **yä* to *ī* is prior to the change of **ny-* to *y-*.

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A KAINGANG TEXT.[1]

By Jules Henry.

The data for this paper were obtained during my stay among the Kaingang Indians of Santa Catarina, Brazil, from December 1932 until January 1934. Although the object of the investigation was primarily ethnological enough data were obtained for an outline of the language. The language was studied principally in order that I might learn to speak it — which I did — and the great bulk of my ethnological work was done in the native language. Nevertheless, since the language was utterly strange to me and there was no source from which I might learn it[2], except from the Indians, I found it necessary to make a certain amount of systematic analysis.

There are several Indian tribes in southern Brazil that are called Kaingang: one in São Paulo, another in Paraná, and still others in Santa Catarina. Those that I studied are in the latter state, in the Municipality of Dalbergia[3], at the Post of the Serviço de Protecção aos Indios, "Duque de Caxias".

The Kaingang have been grouped in the Ges-Tapuya linguistic family with the Botocudo of the Rio Doce in the state of Minas Geraes[4]. I find, on comparing the available data that there is no justification for such grouping. It is desireable, therefore, to consider the Kaingang dialects alone until more material is forthcoming.

CONSONANTS.

The most striking single feature of the basic consonantic scheme is the large number of nasals: 9 out of 18 of the consonants are nasals or are accompanied by nasal voicing. These last are the *mb̲*, *nd̲* and *ŋg̲* in the plosive series.

Consonants: Broad transcription.

	Bilabial	Labio-dental	Dental	Alveolar	Alveolar-Palatal	Palatal	Velar	Glottal
Plosives	*p mb̲ (m̥)*		*t nd̲ (n̥)*				*k ŋg̲ (ŋ̥)*	
Nasal	*m*	*ɱ*	*n*			*ɲ*	*ŋ*	
Lateral Frictionsless				*l*				
Fricatives		*v*	*ð*			*y*		*h*
Affricatives					*tʃ ndʒ*			

[1] The field work was made possible by a grant from the Rockefeller Foundation to the Columbia University Department of Anthropology.

[2] I am indebted to Eduardo de Lima e Silva Hoerhan of the Serviço de Protecção aos Indios for assistance in the early days of the study.

[3] Formerly part of the Municipality of Blumenau.

[4] Ehrenreich, *Archiv für Anthropologie*, NS. III, 1905, pp. 52, 53; Festschrift für Adolf Bastian. Also, following Chamberlain's map as best we can by latitude and longitude (AA. NS. V. 15; 1913, pp. 236—247) we see that he extends his Tapuyan group into Paraná and São Paulo without including Santa Catarina. If he includes the Kaingang speaking tribes of Paraná and São Paulo in his Tapuyan family he must extend its limits into Santa Catarina.

Vowels: Broad transcription

Pure Vowels

	Close			Open		
Front	*i*		*e*	*ɛ*	*æ*	*a*
Central	*ɨ*			*ɜ*		
Back	*u*	*v*	*o*	*ɔ*		

Nasalized Vowels

Front	*ĩ*			*ɛ̃*	*ã*
Central	*ɨ̃*				
Back	*ũ*		*õ*	*ɔ̃*	

Diphthongs

æɪ, *aɪ*, *ɪɪ*, *ɜɪ*, *uɪ*, *vɪ*, *oɪ*, *ɔɪ*

Plosives.

The dental plosives are interdental.

The voiceless plosives are aspirated. Under the influence of a phonetic law, which will be discussed in its proper place, a series of unexploded stops is produced. These stops, that I have called contact stops, exactly parallel the terminal *k*, *t* and *p* of the New York City pronunciation of back, cat and rope except that the Kaingang consonants are interdental.

I have placed *m͡b*, *n͡d*, and *ŋ͡g* in the plosive series because they function like plosives in the language. That is to say they never occur terminally, and they may, with the exception of *n͡d*, be followed by *l*. All nasal consonants except *ŋ* may terminate syllables. Only *ŋ* may be followed by *l*.

The sounds that I have designated *m̥*, *n̥*, and *ŋ̥*[1] are really nasally exploded *b*, *d*, and *g* respectively. They seem logically to belong to the series of nasal consonants because of their occurence at the end of syllables. So, also, they obey the same phonetic law as do *n*, *m* and *ŋ* (see section on Retrogressive Changes), and effect *y* in exactly the same way as do *n*, *m*, and *ŋ* (see section on Progressive Changes). Nevertheless, the fact that these nasal plosives occur only terminally, whereas the corresponding oral plosives, *m͡b*, *n͡d* and *ŋ͡g* occur only initially leads us to conclude that these two series are really one phoneme. Thus in terminal position *m͡b* becomes *m̥*, *n͡d* becomes *n̥* and *ŋ͡g* becomes *ŋ̥*.

[1] These sounds are made by an initial closure of the nares. The fact that at the beginning of my study I heard these consonants as *d*, *b*, and *g* would seem to support this belief.

Nasals.

The dental nasals are interdental.

The labio-dental nasal, *ɱ*, is a true and stable phoneme. It is made by touching the upper teeth to the lower lip while the vocal chords are vibrating and the air is issuing through the nose. *ɱ* may be distinguished from the labio-dental fricative, *v*, by the fact that in the former there is no friction between the lips and the teeth while in the latter there is no nasal quality.

Lateral Frictionless.

Between vowels *l* is often replaced by *ɾ*.

Fricatives.

v alternates with *β*. The principal element of this phoneme, *v*, is made by touching the upper teeth to the lower lip lightly. Now, most of the Kaingang above 15 years of age have lost their upper incisors. As they grow older they lose more of their teeth, especially the front uppers. In rapid speech, therefore, a person trying to produce a true *v* would often not do so. What he does produce is a bilabial fricative, *β*.

Because of the rounding of the lips preparatory to producing a rounded vowel the labio-dental fricative is often heard as a very fricative *w*. In this case there is friction not only between the lips and teeth but also between the lips.

ð is a mixture of the voiceless and voiced interdental fricative. The vocal cords do not start to vibrate until the air is already issuing from the mouth.

Affricatives.

The voiceless affricative is sometimes heard as *ʃ*, particularly in unaccented position. It also occurs as *ʃtʃ* and as *sʃtʃ* in unaccented position.

The voiced affricative has a *y* quality, particularly when it is the result of the change of *y* to *dz* (see Progressive Phonetic Changes).

VOWELS.

ɪ occurs only in diphthongs.

e and *ɛ* do not differ a great deal in quality, the *e* being rather open.

PHONETIC CHANGES.

Consonantic.

There are two large groups of consonantic changes in Kaingang: Retrogressive and Progressive. The Retrogressive are by far the most common and are purely mechanical. The Progressive changes are in some instances dependent upon grammatical processes.

Retrogressive Consonantic Changes.

A nasal consonant that terminates a syllable must change to a voiceless contact stop if followed directly by a voiceless sound. These changes are dependent upon the speech flow. That is to say, in ordinary conversation if the speech becomes very slow, or if there is a stop for rhetorical phrasing, the changes may not take place at the points where the flow slows down or where the pause for phrasing occurs.

Since *ð* is a mixture of voiceless and voiced friction the nasals behave before *ð* as if it were a voiceless consonant.

Since all Kaingang syllables must end in either a vowel or in a nasal consonant these changes are encountered with great frequency. Nevertheless, in spite of their variety and the frequency of their occurence, the rules are so simple that a foreign speaker of the language, like myself, very quickly develops a "feeling" for them and comes to use them automatically.

The retrogressive consonantic changes are as follows:

m and *m̥* change to *p* before *t*, *k*, *ð*, and *tʃ*. When followed by *p* only the aspirated *p* is articulated.

n and *n̥* change to *t* before *p*, *k*, and *ð*. When followed by *t* only the aspirated *t* is articulated. When followed by *tʃ* the *t* is often assimilated.

ɲ obeys the same rules as *n* and *n̥*.

ŋ and *ŋ̥* change to *k* before *p*, *t*, *ð* and *tʃ*. Before *k* only the aspirated *k* is articulated.

It is thus seen that whenever a nasal consonant is followed by a voiceless sound it either disappears or is replaced by a contact stop that corresponds to its own physiological position. That is to say (1) The bilabial nasals become bilabial contact stops; (2) The interdental nasals become interdental contact stops; (3) The velar nasals become velar contact stops; (4) The palatal nasal also becomes a *t* just as the *n* and *n̥* do, but I am unable to state whether it is a palatal or dental *t* that is produced.

Progressive Consonantic Changes.

When *y* is preceded by a nasal it changes to *dz*.

When *ŋ* is preceded by *m* or by *m̥* it drops out.

The following changes may be considered as grammatical: When the verb *keŋ* is preceded, in any of its forms, by a nasal consonant the *k* becomes *ŋ͡g*. The connective, *kũ*, with considerable irregularity, becomes *ŋgũ* after *ŋ* and *ŋ̥*. A large class of verbs ending in *ke* sometimes change the *k* to *ŋ͡g* if the preceding syllable ends in a nasal consonant. The first person plural possessive pronoun *aŋ* changes an initial *k* in the possessed object to *ŋg*. Only one *ŋ* is pronounced in this case. Possessive pronouns are always directly prefixed to the possessed object.

The vitality of the nasal consonants in Kaingang is remarkable. Not only for their

number but also for their activity do the nasals stand out as an extraordinary series. Every one of them not only changes itself but brings about changes in other consonants. The peculiar vigor of the nasal consonants of Kaingang must be looked upon as the fundamental phonetic characteristic of the language.

OTHER PHONETIC CHANGES.

A nasalized vowel if followed by a voiceless consonant may be followed directly by a contact *k*.

Vowel elision is rare. It is not dependent upon grammatical processes. When two vowels that are not part of one morphological element come together in discourse the first one is sometimes elided.

The first person singular pronoun, *εŋ* changes to *e* before voiceless sounds and *ð*. But when in contact with *t* it also changes the *t* to *tʃ*. *εŋ* changes the *n* in most nouns beginning with *n* to *ɲ*. Certain nouns beginning with *nd* change to *dʒ* after *εŋ*.

In Kaingang there are two kinds of diphthongs, those that are stable units and those that spring into existence in response to phonetic laws. Whenever a vowel precedes *tʃ* it is diphthongized by the insertion of of *ɪ* before the consonant. This is a mechanical phenomenon. When a vowel precedes the element *ke* which means "to be about to do (something)" it is diphthongized in the same way. This is a grammatical phenomenon.

The vowel preceding *ŋ* becomes nasalized when *ŋ* changes to *k*.

m, *n*, and *ɲ* may be converted into their corresponding nasally exploded plosives when they occur immediately after an accented syllable.

Certain vocalic changes occur in response to grammatical rules. Since these are comparatively rare they will not be discussed here.

Text

mõk[1] *'tʃɨ*[2] *ha*[3] *ŋv*[4] *kɔ'ðɛyɛ*[5] *tɛ̃*[6] *ŋgæŋ*[7] *mu*[8] 1
Honey insect flower gather

tɛ̃[6] *'kũ*[9] *ŋv*[4] *ŋglũ*[10] *tɛ̃*[6] *ŋv*[4] *ti*[11] *ndv*[12] *'tɛ̃*[13]
and so tucan him behind go

mu[8] *haɲaŋ'lɔ*[14] *tã*[15] *mõk*[1] *tɛ̃*[6] *væk*[16] *'tũ*[17] *tɛ̃*[6]
but he honey saw not

'kũ[9] *ŋv*[4] *tã*[15] *ta'viŋ*[18] *mu*[8] *'kũ*[9] *ŋv*[4] *tã*[15] *mõk*[1]
Then he arrive Then he Honey

tɛ̃[6] *væk*[16] *'tũ*[17] *nũ*[11] *tɛ̃*[6] *'ke*[19] *ŋv*[4] *tã*[15] *mu*[8] 5
see not I say he

'kũ[9] *ŋv*[4] *ku'yaŋ*[20] *ŋv*[4] *'ti*[11] *li*[21] *'kæɲ*[22] *ti*[11]
Then baitaka his same do him

ndv[12] *mõk*[1] *'tʃɨ*[2] *tɛ̃*[6] *tõ*[23] *kɔ'ðɛyɛ*[5] *'ŋgæɪ*[7] *tɛ̃*[6]
behind honey insect flower gather and

kũ[9] *ŋv*[4] *tã*[16] *'vɛlɛ*[24] *ti*[11] *ndv*[12] *'tɛ̃*[13] *mu*[14]
so he him behind go

haɲaŋ'lɔ[15] *ŋv tã ti væk*[16] *'tũ*[17] *tɛ̃ kũ ŋv tã*
but he him see not Then he

ka 'tɛ̃[25] *mu kũ ŋv tã ta'viŋ*[18] *mu 'kũ ŋv tã* 10
come Then he arrive Then he

'vɛlɛ[24] *'mõk tɛ̃ væk 'tũ nũ*[11] *tɛ̃ 'ke*[20] *ŋv tã mu*
honey see not I say he

kũ kãt'kãla[26] *ŋv mõk tɛ̃ tõ*[23] *kɔ'ðɛyɛ ŋgæɪ*
Then marcaná honey flower gather

tɛ̃ kũ ti[11] *'tɛ̃k*[27] *tɛ̃ kũ mõk tɛ̃ ndv 'tɛŋ*[28]
and so his go and so honey behind go

mbaɲ[29] *mu kũ ŋv tã mõk tɛ̃ 'væŋ*[30] *mu*
again Then he honey see

kãt'kãla[26] *'ha*[3] *ŋv mõk tɛ̃ 'væŋ mu 'kũ ŋv* 15
marcaná honey see Then

tã ɛ[31] *ta'vi*[29] *tɛ̃ kũ mõk tɛ̃ 'væŋ nũ*[19] *mu*
he his arrive and so honey see I

haɲaŋlɔ[14] *'tã*[16] *kɔ'ðɨ*[32] *kɨ*[33] *ɲɛ*[34] *'ke ŋv tã mu*
but it stone in sit say he

tɛ̃ kũ ɔŋ[11] *'na:li*[35] *to*[36] *'mũ*[37] *mu kũ ŋv*
And so they all to go Then

ɔŋ[11] *pæ'tɨ*[38] *mu haɲaŋlɔ*[14] *ɔŋ*[11] *ɔŋ*[11] *'dʒa*[39]
they pierce but they their beak

tɛ̃ to[36] *'mblɜy*[40] *kæ ke*[41] *mu kũ ŋv ɔŋ* 20
against break all the time Then they

ŋglũ[42] ŋglũ[42] tɛ̄ mɔ̃[43] 'to[36] ka'tɛŋ[44] aha[11]
tucan tucan to to come you

ma[11] a[11] 'mbæŋ[45] a[11] mbæŋ[45] 'mbɜŋ[46] mbɔ[47]
you your beak your beak large carry

'tɛŋ[13] 'ke[48] kũ[9] tã to[36] ka'tɛ̄[25] mu kũ ŋv tã
go So Then he to come Then he

pæ'tɨ[38] mu haɲaŋ'lɔ[50] ti mbæk[45] tɛ̄[6] 'mblɜyɜ[40]
pierce But his beak break

mu kũ ŋv ɔŋ ɛ[31] tɔ̃[23] pæ'ðɨɲ[38] yæ[49] to[36]
Then they they pierce in order to

ka'mbɜŋ[51] nɔ ndɛ[52] haɲaŋ'lɔ[50] klaymblu'tʃɛ[53]
many but woodpecker

tɛ̄ ŋv ɛ[31] 'mbɔ[54] ðɨ[55] ðɨ[11] 'klɔ[56] tɛ̄ ŋv tã[15]
his her pestle he

'kulu[57] tɔ̃[23] ŋaɪɲɛ'ndvt[58] kũ[9] kũ[9] ŋv tã
cloth covered over Then Then he

'klɔ[56] tɛ̄ pæ'tɨ[38] mu pæ'ðɨt[38] kũ tã ðɛ̄ tɔ̃
pestle pierce pierce Then he pierce

'yutke[59] mu kũ ŋv tã 'vɛlɛ[24] ðɔkɔ'ɲat[60]
through Then he turned around

kũ tã pæ'ðɨɲ mbaɲ[29] mu kũ tã ŋa'kæ[61]
Then he pierce again Then he

ɲũ[11] yæ[62] tɔŋ'ŋgɛt[63] kũ[9] kũ[9] nũ[11] yæ[62] e 'tʃɔ̃[64]
I thus and and I I

'mõk tɛ̄ to[36] 'tɛ̄[13] lɔ[65] pæ'tɨ[38] yæ[62] 'ke[48] tɛ̄[6]
honey to go pierce So

tã[15] to[36] 'tɛ̄[13] mu kũ ŋv tã ɔŋ mɔ̃[43] nde[66]
he to go Then he them to what

'to[36] a'ŋgɛlɛ'mɛŋ[67] nũ mu 'ke[19] tã ɔŋ mɔ̃[43]
to noise I say he them to

mu[8] kũ ŋv ɔŋ 'ti mɔ̃[43] e 'tʃɔ̃[64] moŋ[68] pæðɨt
Then they him to I honey pierce

'ke[69] kũ to[38] 'ŋgɛlɛ'mɛn[70] ŋa[71] ke ŋv ɔŋ
about to and to noise say they

'ti mɔ̃[43] mu[8] kũ ŋv ɔk 'ti mɔ̃[43] ɛŋ ɲɔ̃[43]
him to Then they him to me for

pæ'ðɨɲ dzæ[49] yæ[49] ka'tã[72] ke ŋv
pierce in order to in order to approach say

ɔŋ ti 'mɔ̃[43] mu[8] kũ tã to[36] ka'tɛ̄[25] mu kũ
they him to Then he to come Then

tã to[36] ka'tɛ̄[25] kũ pæ'tɨ ɲu[73] ɔgŋ mɔ̃ pæ'ðɨt
he to come and pierce them for pierce

kũ ɔŋ ɔŋ mblæ[74] tã[75] ɲa[76] mu 'mu[77]
Then them them with he eat But in the

ɲaŋlɔ[78] ɔŋ ŋv læŋ'dzɨlɨ[79] tɛ̄ mɔ̃ ti mɔ̃
meanwhile they a bird to him to

nɛp[80] 'tũ[17] ɔk[17] 'tɛ̄ kũ ti tɔ̃[23] ha[3] 've[16] kũ
give not they Then he see and

ɔŋ dzo[81] 'ŋgɔyo[82] tɛ̄ ɔŋ dzo[81]
them in front of water them in front of

pæ'yu[83] ŋa[71] tɛ̄ 'kũ ŋv tã ɛ[31] ha[3] ɛ[31] tɔ̃[23]
hide And so he he he

ŋgɔyo[82] pæ'yu[83] tɛ̄ kũ ŋv 'tã ɛ 'ha 'ŋgɔyo
water hide and so he he water

tɛ̄ ka'klaŋ[84] dzæ[49] 'tɛ̄[13] kæke mu[8]
drink in order to go habitually

kæke 'kũ[9] ŋv ɔŋ ti[11] tɔ̃[23] ɔk[11] tɔ̃[23] ɛ[31]
habitually Then they he they him

'mɔ̃[43] 'mõk tɛ̄ kɨ[85] ɛ 'mɔ̃ nɛp[80] 'tũ[17] ha[3]
to honey in him to give not

've[16] kũ[9] ɔŋ dzo[81] 'ŋgɔyo[82] tɛ̄ nɛ'vɨ[86]
see Then them in front of water do

ŋa[71] tɛ̄[6] kũ[9] ŋv ɔŋ ɲat[87] ka'ŋgaŋ[88] mu
And so their mouth dry

kũ ŋv ɔk[11] 'ti mɔ̃ 'ŋgɔyo tɛ̄ akto[89] ha[3]
Then they him to water near

nɛ[34] ke ŋv ɔŋ læŋ'dzɨlɨ[79] tɛ̄ mɔ̃ mu 'kũ ŋv
sit say they a bird to Then

tã[15] i[90] ŋgɔyo tɛ̄ ku'vɔlɔ[91] kɔ[92] e 'tʃɛŋ[64] hɜ[93]
he No water far away My go good

'ha[3] ŋv[94 4] 'ŋgɔyo[82] tɛ̄ ka'klaŋ[84] ŋgæke
water drink habitually

mu[8] tɛ̄ kũ ŋv ɔŋ ɛ[31] ɲat[87] ka'ŋga[88] tɛ̄
And so they their mouth dry And

kũ kũ ŋv ɔŋ kɔ'ðɨ[32] tɛ̄ kɔ'ðɨ[32] pak'pæ[95] mɛ[96]
so they stone stone wet

ŋv[4] ɔŋ mɛ[96] ka'huɲ[97] mu[14] 'mu ɲaŋlɔ[78]
they lick But in the meanwhile

tʃi'klæ[98] ha[3] ŋv[4] ɔŋ[11] li[21] kæɲ[22] mɛ[96] kɔ'ðɨ[32]
a bird their same do stone

pak'pæ[95] tɛ̄[6] tɛ̄[6] ka'huɲ[97] kɜna'tɛ̄[99]
wet lick walk around

ɲaŋ'lɔ[78] ŋv[4] læydzɨlɨ[79] tɛ̄[6] ka'tɛ̄k[25]
In the meanwhile a bird come

tɛ̃[6] *ˈɲa*[100] *ˈkũ ŋv tã tʃɨˈklæ*[98 101] *tɛ̃ ˈma*[102]
stand Then he a bird hear

kũ[9] *ŋaɯmbæˈyu*[58 103] *mu ɲaŋˈlɔ*[78] *tã*
Then hide oneself In the meanwhile he

læŋˈdzɤlɨ[79] *tɛ̃ ŋv tʃɨˈklæ*[98] *tɛ̃ væk*[17] *ˈtũ*[18] *tɛ̃*
a bird a bird see not

tɛ̃ ˈkũ ŋv tã pæˈnɛ[104] *mbɜŋ*[46] *tɛ̃ tɔ̃ ˈβɨp-*
and so he turtle large tilt

ke[59 105] *mu ɲaŋlɔ*[78] *tʃɨˈklæ*[98] *tɛ̃*
up In the meanwhile a bird

ŋaɯmbæˈyu[103] *kũ ˈvæŋ*[16] *ɲa*[99] *ˈɲaŋlɔ*[78]
hide oneself and see stand In the meanwhile

læŋˈdzɤlɨ[79] *tɛ̃ pænɛ*[104] *ˈmbɜk*[46] *tɛ̃ ɲaˈndzɨt*[60 106]
a bird turtle large tilt back

kũ tã ˈŋgɔyo[82] *tɛ̃ kaˈklaŋ*[84] *mu kaklat*[84]
and he water drink drink

ˈkɔlɔkũ[107] *tã klɛ̃ tɔ̃ ˈtɔpke*[59 108] *mu ˈke*[22] *tɛ̃*[6]
after he cover up Thus

tã[15] *ˈtɛ̃*[13] *mu kũ tʃɨˈklæ*[98] *tɛ̃ to*[36] *kaˈtɛ̃*[25] *mu*
he go Then a bird to come

ˈkũ ŋv tã ˈpænɛ[104] *ˈmbɜk*[46] *tɛ̃ tɔ̃ βɨpke*[59 105]
Then he turtle big tilt up

mu ˈkũ tã hɪ hɪ hɪ hɪ[109] *ˈŋgɔyo ˈvem*[110]
Then he water see

ˈŋgɔyo vem[110] *ˈŋgɔyo vem*[110] *ˈke ŋv tã mɯ*[8]
water see water see say he

kũ ŋv ˈɔŋ ˈma[102] *kũ to*[36] *ka ˈmũ*[25 111]
Then then hear and to come

mu ˈna:li[35] *kamũ*[111] *ˈka*[112] *ndɛ*[113] *mu*
all come finish

ˈmu ɲaŋlɔ[77] *læŋˈdzɤlɨ*[79] *tɛ̃ ˈto*[36]
but in the meanwhile a bird to

kaˈtɛ̃[25] *mu kũ tã ɛ*[31] *pænɛ*[104] *ˈmbɜk*[46] *tɛ̃*
come Then he his turtle large

ˈmbat[114] *kũ ˈŋgɔyo tɛ̃ klɛ̃*[115] *ˈnɛ*[80] *mu*
take and water on top place

haɲaŋˈlɔ[14] *ŋv*[4] *ɔŋ kaˈkɔmɔ*[116] *ɔŋ ŋv*[4]
But they pay no attention they

ˈti[11] *li*[21] *kæŋ*[22] *mu*[117] *tɔ̃ βɨpke*[105] *mbaŋ*[29] *mu*
his same do tilt up again

kũ ˈvæk[16] *tɛ̃*[6] *læŋˈdzɤlɨ*[79] *tɛ̃ to ˈvaɪ*[118] *mu*
Then see a bird to stop

ɲaŋlɔ[78] *ŋv*[4] *ɔŋ ˈŋgɔyo*[82] *tɛ̃ kɨ*[33]
In the meanwhile they water in

kaˈmbɜ[50] *kɔ*[92] *kũ ŋv ɔŋ ˈmɛ*[96] *kaˈklaŋ*[84] *mu ɔŋ* 85
many Then they drink their

ɲat[87] *kaˈŋga*[88] *ˈtɛ̃ yɔˈŋgɨ*[119] *kɔ*[92] *haˈkũ*[120] *ɔk*[11]
mouth dry very therefore they

tɔ̃[23] *ŋgɔyo*[82] *tɛ̃ kɔnaŋ*[121] *mu*[122] *kæke*[41] *ŋa*[71]
water look for habitually

Free Translation.

The bee was gathering flowers. Then the tucan followed him but did not see the hive. Then he came back and said, "I did not see the hive." That is what he said. Then the baitaka did the same as he — when the bee was gathering flowers he followed him but did not see it. Then he came back. Then he arrived. Then he said, "I did not see the hive." That is what he said. Then when the bee gathered flowers the marcaná went after him again. Then he saw the hive. It was the marcaná that saw the hive. Then when he arrived he said, "I saw the hive, but it was inside a rock." That is what he said. Then they all went there. Then they pierced it. But their beaks would always break. So they said to the tucan, "Come here. Take your big beak." So he came there. Then he pierced but his beak broke. Now, there were a great many of them there trying to pierce the hive. Now, the woodpecker had his *mbɜ*[1] pestle under a cloth. Then he pierced the pestle. Then he pierced through. Then he turned it around and pierced again. Then he said, "If I go to the bee-hive I'll pierce it in just this way." So saying he went there. Then he said to them, "What's all this noise about?" That is what he said to them. Then they said to him, "The noise is because I am about to pierce this hive." That is what they said to him. Then they said to him, "Come here and pierce it for me." That is what they said to him. Then he came there. Then he

[1] The woman who treats ceremonially a child's umbilical cord.

came there and pierced it. When he pierced it for them he ate honey with them. But in the meanwhile they did not give any to *læŋˈdʒili*. When he saw this he stole the water from them. So when he stole the water he would always go away to drink. Now, when he saw that they did not give him any honey he did that to the water and so they were thirsty. Then they said to him, "Is the water near here?" That is what they said to *læŋˈdʒili*. Then he said, "No. Water is far away. I really have to travel, then I drink water." So, since they were thirsty they licked and sucked damp rocks. In the meanwhile *tʃiˈklæ* did the same as they and was walking around licking damp rocks. In the meanwhile *læŋˈdʒili* was coming along. When *tʃiˈklæ* heard this he hid himself. In the meanwhile *læŋˈdʒili* did not see *tʃiˈklæ*. So he tilted back big-turtle. In the meanwhile *tʃiˈklæ* was looking on from his hiding place. In the meanwhile *læŋˈdʒili* tilted back big-turtle and drank water. After drinking he closed it down on top. When he did this he went away. Then *tʃiˈklæ* came over and tilted up big-turtle. Then he went, "Hi hi hi hi hi! I see water! I see water! I see water!" That is what he said. When they heard this they came there. Every single one of them came. In the meanwhile *læŋˈdʒili* came there. Then he took his big-turtle and placed it over the water. But they payed no attention to it. They did the same as he and tilted it up again. When *læŋˈdʒili* saw this he stopped. In the meanwhile there were many of them in the water. Then they were all drinking. They were very thirsty that is why they looked for the water.

Notes.

1 Honey or hive. Sometimes used also to mean bee. The word is *moŋ*, but under the influence of the following sound the *ŋ* has changed to *k* and the *o* has become nasalized.

2 Insect. Used most often with respect to the bee in order to distinguish the honey from the bee. Thus, what is meant here is the honey's insect, i. e. bee.

3 An element of wide functions used in this case simply for emphasis. This is a common practise in opening a story. In l. 15 it is seen again accompanying the nominal subject *kātˈkāla*, marcaná, because here it is desired to emphasize the fact that it was the marcaná that found the honey. But in l. 12 although the subject is the same the *ha* does not appear because there is no particular reason for emphasizing it.

But the element *ha* has other functions:

(1) As a relative it refers to some object or event in a preceding clause or statement, as in l. 50.

(2) As a demonstrative it means both "here" and "there". In l. 56 it means "there". It often occurs, but with considerable irregularity, with other demonstratives as a prefixed element without modifying their meaning. It is prefixed to locatives however to form demonstrative ideas.

Examples.

tɜ	there
haˈtɜ	there
ki and *ka*	in or on
haˈki and *haˈka*	here or there

ha occurs frequently in combination with locatives and demonstratives; less often with postpositions. It rarely occurs alone as a demonstrative.

4 A particle that accompanies third person subjects in the active form of the verb.

5 Flower. *kɔ* means tree. *ˈðeyɛ* means flower. Thus, tree's flowers.

6 *tɛ̄* occurs regularly after nominal subjects, direct and indirect objects of verbs and objects of postpositions. Kaingang is rich in etymologically unanalyzable and stable nouns. That is to say, these do not undergo far-reaching changes and cannot be confused with other forms. To this group belong all of the personal names and names of objects. Yet, in spite of the fact that the nouns

belonging to this group cannot be confused in discourse, they are systematically accompanied by *tɛ̃*. Thus *tɛ̃* is otiose in these cases, and hence, is often omitted, as in l. 7.

Since *tɛ̃* is closely associated with nominal objects it occurs often after nominal forms of the verb when they become objects of succeeding verbs:

Examples.

kũ ŋv tã mɛ̃k tɛ̃ ka'tɛŋ tɛ̃ maŋ mu.
Then he tiger come hear.

Then he heard the tiger's coming; i. e. Then he heard the tiger coming. (For the untranslated elements here see Notes 4, 9, 8, 16.)

ti tõ ɛ tõ lɔ 'ko tɛ̃ 'mɛ̃k tɛ̃ tõ ve kɔ'maŋ ŋa
He he ants eat tiger see fear

He was afraid that the tiger would see by-him-ant-eating; i. e. He was afraid that the tiger would see that he ate ants. (For the untranslated elements see Notes 11, 23, 33, 7).

pɛ̃ e tʃõ 'ŋgæɪ tɛ̃ ŋge lɔ
Fire-wood I gather gather imperative

Take up (gather) by-me-wood-gathering; i. e. Take up the wood I gathered! (For untranslated elements see Note 23.)

ɛŋ'ha nũ ti mblo tɛ̃ 'væŋ mu
I I his swim see

I saw his swimming; i. e. I saw him swimming. (For untranslated elements see Notes 3, and 8.)

ɛŋ'ha nũ ka'rosa ta'vi tɛ̃ 'væŋ mu
I I wagon arrive see

I saw wagon's arriving; i. e. I saw the wagon arriving. (For untranslated elements see Notes 3 and 8.)

kũ ŋv tã ti tõ mõk tɛ̃ pæ'ti ɲa tɛ̃ 'klam nɔ
Then he he hive pierce stand under lie

Then he was lying beneath (the) by-him-hive-piercing; i. e. Then he was lying under the hive he had been piercing. (For untranslated elements see Notes 4 and 23. The verb *ɲa* often expresses continued action.)

ŋv tã ti tõ mõk pæ'ðin to ka'tɛ̃ tɛ̃ 'ki ta'vi
He he hive pierce to come in arrive

kũ tã...
and he

He (A) arrived at his (B) hive-piercing; i. e. He (A) arrived at the place where he (B) had been piercing a hive, and he.....

tɛ̃ functions together with the connective *kũ* as a connective. But this function must be considered as related to its function with nouns, since it occurs with nominal forms of the verb.

Examples.

ɛ tõ v'yolo tɛ̃ 've tɛ̃ kũ ti 'vu ka 'tɛ̃ mu
He tapir see him chase come

By him tapir-seeing and so he came along chasing him; i. e. When he saw the tapir he came along chasing him.

ɛ tõ ti mba tɛ̃ kũ ku'tiŋ yɔ lɔ ti
He him seize darkness place along him

mbɔ tɛ̃ mu
carry go

By him (tiger) him (man)-seizing and so into the darkness carried him; i. e. He (tiger) seized him and dragged him into the darkness.

kũ ŋv tã ɛ ta'vi tɛ̃ kũ ŋv tã tv mu
Then he his arriving he tell

Then he, his arriving and he told; i. e. When he arrived he told.

tɛ̃ also occurs alone as a connective after the active form of the verb without difference in meaning.

Examples.

kũ ŋv tã væk tɛ̃ 'tɛ̃ mu
Then he see go

Then he see go; i. e. Then, when he saw (it) he went.

kũ ŋv tã ɛ tõ 've tɛ̃ kũ ŋv tã 'ũ tɛ̃
Then he he see he others

ɔŋ 'mõ ŋv tã 'tv mu
them to he tell

Then by him seeing and so he told (it) to the others; i. e. Then, when he saw (it) he told (it) to the others.

The temporal clauses in the last two examples have exactly the same meaning. In the former we have the active form of the verb, while in the latter we have the nominal form of the verb.

tɛ̄ occurs after certain elements expressing conditions:

(1) *ti ˈtvyv tɛ̄*
It moist
It is moist.

(2) *kaɪpˈvi tɛ̄*
light
It is light (in weight).

(3) *ɛŋ ˈhɜ tɛ̄*
I good
I am better (i. e. not sick).

(4) *ti ya kuˈlæk tɛ̄*
It edge bad
The edge (of the knife) is dull.

(5) *taˈndaya ŋv tā tɛ̄*
splintered it
It is splintered.

(6) *ðɜɪˈpa ŋv tā tɛ̄*
four-cornered it
It is four-cornered.

(7) *kuˈpli tā tɛ̄*
White it
It is white.

(8) *tā ŋv paˈlælæ tɛ̄*
shallow
It (the stream) is shallow.

(9) *ˈŋgɔyo tɛ̄ ŋv ˈu tɛ̄*
Water good
The water is good.

(10) *ˈŋgɔyo tɛ̄ ðɔŋˈndɛ̄k tɛ̄*
Water bad
The water is bad.

tɛ̄ occurs also in the following constructions:

(11) *a ha ma klɜŋ ˈnɛ ko ˈvaɪ kũ ma tɛ̄*
You you animal meat eat never and you
You never eat meat.

(12) *ŋaˈði yɔˈŋgɪt kũ tā tɛ̄*
Weave very much and he
He weaves very much.

(13) *ði ŋaɪˈlɜlɜ ha ŋv mɛ ˈvit*
Her body paint scattered about

(14) *kũ tā tɛ̄*
and it
Her body paint is spots scattered about.

(15) *loɪ ˈvaɪ kũ tā tɛ̄*
To cut hair never and he
He never cuts hair (or, His hair is never cut).

Examples (1) and (3) parallel such expressions as

ti nɛˈŋga ŋa
his arm
It is his arm.

tʃi ŋa
rattle
It is a rattle.

(This section must be examined in connection with Notes 7, second part, and 71.)

tɛ̄, we have seen, occurs with nouns. We are thus lead to believe that the elements expressing conditions in the sentences listed above are also nouns. *ŋa* also occurs only with nouns.

In the sentence

ti nɛˈŋga ŋa
his arm
It is his arm.

ŋa is a predicating element. So in the sentence

ti ˈtvyv tɛ̄
it moist
It is moist.

tɛ̄ is also a predicating element.

In the sentence (6)

ðɜɪˈpa ŋv tā tɛ̄
four-cornered it
It is four-cornered

the syntactical structure parallels

(16) *'tɨ ŋv tã mu*
die he
He died.

But *mu* is not a predicating element but the particle associated with the active form of the verb. (See Note 7, second part.) *ðɜɪ'pa*, however, is not a verb. If it were it would have both *ŋa* and *mu* forms. (See Note 7, second part.) But these do not exist. This is a further proof that the elements expressing condition are nouns.

The syntactical position of *ðɜɪ'pa* is not different from the syntactical position of the noun in such constructions as

(17) *tʃɨ ŋv tã nɛ*
dark brown it sit
It is dark brown.

In this sentence *nɛ* predicates color (condition) with regard to something.

Thus, *tẽ* is, like *ŋa*, a predicating element. At the same time it is closely related to *nɛ*, to sit; *nɔ*, to lie; *ɲaŋ*, to stand; and *tʃɔ* used with reference to certain long objects.

The close relation of these elements will become clearer if we examine the examples below in which *tẽ*, *nɛ*, *nɔ*, *ɲaŋ*, and *tʃɔ* are used in parallel constructions. Each number in the *tẽ* group is to be compared with its corresponding number in the other groups.

tẽ

(1) *ta 'mɛ ŋv 'tʃɔ tẽ*
There distributive cliff
There is a cliff there.

(2) *kw'pli tã tẽ*
White it
It is white.

(3) *'ŋgɔyo tẽ ŋv 'u tẽ*
Water good
The water is good.

(4) *kaɪɲ'vɨ tẽ*
Light (in weight)
It is light (in weight).

(5) *ŋa'ðɨ yɔ'ŋgɨt kũ tã tẽ*
Weave very much and he
He weaves very much.

(6) *a ha ma klɜŋ 'nɛ ko 'vaɪ kũ ma tẽ*
You you animal meat eat never and you
You never eat meat.

nɛ

(1) *yuŋ'ŋguŋ ðat'ka ha ŋv nɛ*
Hawk door sit
The hawk's door is there.

(2) *tʃɨ ŋv tã nɛ*
Brown he sit
He is brown.

(3) *ɲɛlɛ tẽ 'u nɛ*
Child good sit
A pretty child.

(6) *tã ŋv ŋaɪndʒɔŋ'ndẽt kũ nɛ*
He insane and sit
He is insane.

nɔ

(1) *tɔk'tɜ ŋv a'pɔ nɔ*
There farm lie
There is a farm there.

(2) *nde ɲɔ ŋv a ɲatkɨ 'ka tẽ ka*
What lie your mouth inside inside
ku'tʃuŋ nɔ
red lie
What-thing-lying-down in your mouth lies red; i. e. What is that red thing in your mouth?

(4) *vv ŋv tã nɔ*
Loose he lie
It is loose.

ɲa

(1) *ɛn ha 'ŋv ɲa*
House stand
There is a house; or There is the house.

(5) *mblo yɔ'ŋgɨt kũ tã ɲa*
Swim very much and he stand
He swims very much.

(6) *tiha ŋv mblo ˈvaɪ kũ ɲa*
He swim never and stand

He never swims.

tʃɔ

(1) *ŋgɔyo ŋv ˈtaka tʃɔ*
Water there

The stream is there.

Before going further with the argument it is necessary to point out certain differences in meaning in number 1 in all the groups. In the *tɛ̃* group the general statement is made that over there there is a cliff. In the *nɛ* group a man must be conceived of as pointing up to the sky and saying to some people "The hawk's door is right there." In the *nɔ* group we have again the general statement that somewhere in that direction there is a farm. In the *ɲa* group we are again dealing with an emphatic statement similar to that in the *nɛ* group — "The house is there" or "There is the house". This emphasis is achieved by the use of the *ha*. Without it the statement about the hawk's door would mean simply "There is (or was) a hawk's door".

These considerations, however, do not effect the general conclusion, viz., that all of these elements *tɛ̃*, *nɔ*, *ɲaŋ*, *nɛ*, and *tʃɔ* are predicating elements.

In the actual expression of meaning *tɛ̃* is more closely associated with *nɛ*, *nɔ*, *ɲaŋ*, and *tʃɔ* than with *ŋa*. Like the former it postulates position even though it be position only in a very general way. The sentence

ta ˈmɛ ŋv tʃɔ tɛ̃
there distributive demonstrative cliff

There is a cliff along there.

is an excellent example of this. The idea could not possibly be expressed with *ŋa*, for *ŋa* never expresses position (see Note 71). *ŋa* defines, *tɛ̃* expresses condition and position. *ŋa* rarely expresses condition (see Note 71). It is for this reason that *tɛ̃* occurs often in constructions that parallel those in which appear *nɛ*, *nɔ*, *ɲaŋ*, and *tʃɔ*. These last elements also express condition.[1]

Because *tɛ̃* accompanies nominal subjects and is used also as a predicating element two *tɛ̃* sometimes occur together. This is readily understood since the first *tɛ̃*, i. e. the one that follows the subject, is that *tɛ̃* which we are accustomed to see with the subject whereas the second belongs with the element that is predicated about.

Examples:

ɲuŋˈndiŋ ŋaukɔkˈtɔ ũ kaˈmbi tɛ̃ tɛ̃
Umbilical chord medicine other (a tree)

There is another medicine for the umbilical chord called *kaˈmbi*.

tɔŋˈŋgɛ ɔŋ ˈndo tɛ̃ tɛ̃
Thus their arrows

Their arrows were like that.

ˈŋgɔyo tɛ̃ ˈklam ɔŋ ˈɛ tɛ̃ tɛ̃
Water beneath their houses

Their houses are beneath the water. (They live under the water.)

tɛ̃ enjoys a still wider usage as an element indicating condition.

Examples:

ˈki nũ ku ˈtu tɛ̃
In I forget

I forget. (The verb "to forget" must always be accompanied by the locative.)

ˈtɜ ŋv ðatˈkɔ tɛ̃
Woman necklace

Women wore necklaces.

In this sense it accompanies the negative:

kɔɪŋgɜŋ ŋv kɔ ˈðæyæ tɛ̃ klam ðatˈkɔ
Man tree leaf under necklace

ˈtũ tɛ̃ ɲaŋlɔ ŋv tɜ ŋv
negative disjunctive (but) woman

ðatˈkɔ tɛ̃
necklace

In the forest men did not have necklaces, but women did.

[1] See note on page 218.

The preceding sentence is extracted from this one.

This sentence illustrates the functioning of *tɛ̃* as an element indicating condition. In one case it occurs after the negative, in the next it occurs alone. Its significance in the following sentence may be understood from that point of view:

ɛŋ ha nũ aŋgɔ'kap tɜ ðv tɛ̃
I I the other side there throw

I can throw to the other side (of the river); or, I am capable of throwing to the other side of the river.

tɛ̃ is used to form the definite future.

ku'laŋ ŋv tã katæ'le tɛ̃
To-morrow he descend

To morrow he will come down (the river).

kɔlɔkũ tɔŋlɔ 'mũ tɛ̃
Later that way go

Later they will go in that direction.

ku'tɨŋ gũ ŋaɪŋglæ tɛ̃
Night and dancing

There will be dancing at night.

There is no a priori reason for considering *tɛ̃* in this function as different from the *tɛ̃* that predicates. Werden in German is used to form the future, and werden also is a predicating element.

7 *ŋgæŋ* to gather.

Kaingang often expresses plurality in the verb. When an *intransitive* verb has a plural *subject*, or when a *transitive* verb has a plural *object* the plurality may be expressed in the verb by one of three devices: 1) By complete change of verb; 2) By change of formal verbal prefix; 3) By addition to the verb of a prefix expressing plurality. Both transitive and intransitive verbs are found in all three classes.

In general the plural form of the transitive verb must be used as long as the object is plural. This means for example, that even if a number of people give one object the singular from of the verb is used.

Examples:

Class I: Verbs having different forms in singular and plural

	Singular		*Plural*
1. to take	*vuŋ*	to gather	*ŋgæiŋ*
2. to shoot and hit	*pæ'nũ*		*piŋ*
3. to fall	*ku'ta*		*'vɜlɜ*
4. to give	*'nɛm*		*viŋ*
5. to kill[1]	*'taiŋ*		*lan*
6. to arrive	*ta'vi*		*'yulu*
7. to throw	*ðvŋ*		*lɛŋ*
8. to go	*tɛŋ*		*mũ*
9. to come	*ka'tɛŋ*		*ka'mũ*
10. to die	*'tɛlɛ*		*kɜk'tã*
11. to cut	*kiŋ*		*kle*

Class II: Verbs that change the formal prefix in the plural.

	Singular	*Plural*
1. for a woman to nurse a child	*pæ'ðɔ*	*pek'ðɔ*
2. for a child to nurse	*pæ'ða*	*pek'ða*
3. to hide an object	*pæ'yu*	*piŋ'dʒu*[2]
4. to chop out a bee-hive	*pæ'ðiŋ*	*pik'ðiŋ*[3]
5. to lead by the hand	*pæn'velɛ*	*pɛn'velɛ*
6. to drag along the ground	*pæn'va*	*pɛn'va*
7. to hide oneself	*ŋaɪmbæ'yu*	*ŋaɪmbiŋ-'dʒu*[2]
8. to ascend	*ta'ðiŋ*	*ya'ðiŋ*
9. to hang up	*ða'yɜŋ*	*ðaŋ'dʒɜŋ*[2]
10. to capture	*kaŋ'mɛ*	*kuŋ'mɛ*
11. to look for	*kɔ'na* to err	*kɜŋ'na*
12. to strip embira bark	*kɔ'ðaŋ*	*kɜ'kðaŋ*

[1] This verb has another plural, *kɜŋ'lan*. The prefix *kɜŋ* is a prefix expressing plurality.

[2] The *y* changes to the affricative under the influence of the preceding nasal. See Section on Phonetic Changes.

[3] Two changes occur here: in prefix and in stem vowel — the only instance in the language.

13. to requite	*kɔ'yaɱ*	*kɜŋ'dzaɱ*[1]
14. to stretch	*ku'yæɳ*	*kɜŋ'dzæɳ*[1]
15. to be sick	*kɔ'ŋgɔ*	*kɜŋ'ŋgɔ*
16. to puncture a lip for the lip-plug	*ŋaɪŋglɔkɔ'ðiɳ*	*ŋaɪŋglɔ-ki'kðiɳ*
17. to pull out (extract)	*ku'nuɪ*	*kɜŋ'nuɪ*
18. to separate embira fibre from the bark	*ku'yaɳ*	*kaŋ'dzaɳ*[1]
19. to pinch	*ku'tʃɛ*	*kuŋ'dzɛ*[2]
20. to singe	*ku'tʃiɳ*	*kuŋ'dziɳ*[2]
21. to be hungry	*ku'yɛlɛ*	*kaŋ'dzɛlɛ*[2]
22. to be absent	*ðækɔ'ti*	*ðækik'ti*

Class III: Verbs that form the plural by addition of a prefix to the stem.

	Singular	*Plural*
1. to be born	*pɔ*	*kɜk'pɔ*
2. to burn	*pun*	*kɜ'pun*
3. to bite	*plɔ*	*kɜ'plɔ*
4. to roast in a pit	*nde*	*kɜŋ'nde*
5. to become exhausted (like a supply of food)	*kɜŋ*	*kɜ'kɜgŋ*
6. to spin (cord)	*ŋa'ðæɳ*	*ŋaukɜk'ðæɳ*
7. to wash (clothes)	*ðɔ*	*kɜk'ðɔ*
8. to become alive	*'lɛ̄ lɛ*	*kɜŋ'lɛ̄lɛ*
9. to ripen	*tʃɜɳ*	*kɜk'tʃɜɳ*
10. to grow	*tʃɔɪɲ*	*kɜk'tʃɔɪɲ*
11. to sharpen sticks	*ða'kæɳ*	*ðaksɜ'kæɳ*
12. to plant	*klaɳ*	*kɜ'klaɳ*
13. to escape or heal	*kleɳ*	*kɜ'kleɳ*
14. to make	*hɔɳ*	*kɜŋ'hɔɳ*
15. to put the head on an arrow or lance	*puŋ*	*kik'puŋ*
16. to butcher	*ðiɳ*	*kik'ðiɳ*

It will be observed that the prefix *kɜŋ* not only replaces singular prefixes but also forms the plural of verbs that have no prefixes in the singular.

[1] See footnote 2 on pag. 183.

[2] The voicing of the affricative after a significant prefix is rare but systematic.

It is likely that in Class III, 5, 11, 12 and 13 we are dealing with *kɜŋ*. Under the influence of the phonetic law one *k* has been lost. The result is that these forms resemble 3 and 4.

In Class III, 15 and 16 and in Class II 22 and 16 we are dealing with a law of phonetic harmony that prevents the coming together of *ɜ* and *ɨ* or *u* in succeeding syllables. An exception to this, however, is II, 17.

Occasionally the plural form of a transitive verb may be used when its object is singular.

Example:

kũ ɔk ti piɳ mu
Then they him shoot
Then they shot him.

This means that they shot him more than once. The idea that more than one missile was used is conveyed by using the plural form of the verb. Generally, however, if the object is singular the singular form of the transitive verb must be used, as in the following sentence:

kũ ŋv ɔŋ ti pæ'nũ mu
Then they him shoot
Then they shot him.

In the following sentence the plural form of the transitive verb is used when both the subject and object are singular because the man is struggling with the tiger and a great deal of action and shifting around are implied:

kũ ŋv tā ti ŋa'ðɨ ti kuŋ'mɛ ɲa
Then he his in front of him seized
Then he his-in-front-of (at arm's length). seized him; i. e. Then he held him at arm's length and struggled with him.

But "They captured their child" takes the singular form of the verb, and "They captured their children" takes the plural form of the verb. I have no instances of one person capturing several objects.

It is impossible to divide these verbs into any but their own formal classes. With my

informant I systematically investigated more than 3800 possible combinations of stems and prefixes. This investigation showed that the devices for expressing plurality belong to no special type of verb. The prefixes are not freely moving elements like the Dakota instrumentals, for example. The only prefix that seems to move with freedom is *kɜŋ*.

The form *ŋgæŋ*, "to gather" or "to carry much", is the active form of the verb. The participial form is *ŋgæiŋ*. Kaingang verbs may be divided into 2 classes: 1) Those that are the same in both active and participia constructions, and 2) Those that are differentl

Examples:

Class I: Those verbs that are the same in both active and participial constructions.

to be ashamed	*toˈaiŋŋge*
to cook	*ndæiŋ*
to ulcerate	*kiˈuiŋ*
to arrange	*uŋ*
to be born	*pɔ*
to fear	*kɔˈmaŋ*
to wrap with fibre	*mbleŋ*
to swim	*mblo*
to be first	*væŋ*
to give (many)	*viŋ*
to arrive (plural)	*ˈyulu*
to move (something) about	*vuŋ*
to fall (singular)	*kuˈta*
to kill from within (to kill by illness or black magic)	*tæŋ*
to come (plural)	*kaˈmũ*
to forget	*kuˈtuŋ*
to shoot and hit	*pæˈnũ*
for a woman to nurse	*pæˈðaŋ*
for a child to nurse	*pæˈðɔ*
to place (a large roundish object)	*ðaŋ*

Examples Class II: Verbs that have different forms in participial and active constructions:

	Participial	*Active*
to listen	*aˈma*	*aˈmaŋ*
to think	*aˈklæŋ*	*aˈklæŋ*
to hunt	*aˈklæiŋ*	*aˈklæŋ*
to make a fiesta	*aˈŋglaŋ*	*aˈŋglaŋ*
to make beer	*pe*	*pæŋ*
to wash clothes	*ðɔ*	*ðaŋ*
to bite	*plɔ*	*plaŋ*
to understand (to sense)	*ma*	*maŋ*
to capture	*kaŋˈmɛ*	*kaŋˈmɛŋ*
to catch up to	*ðaˈmɛ*	*ðaˈmɛŋ*
to take or get	*mbaŋ*	*mbaŋ*
to see	*ve*	*væŋ*
to arrive (singular)	*taˈvi*	*taˈviŋ*
to take	*vuŋ*	*vaŋ*
to kill (many)	*laŋ*	*laŋ*
to tell	*taŋ*	*tv*
to die (singular)	*ˈtɛlɛ*	*ti*
to go (singular)	*tɛŋ*	*tɛ̃*
to come (singular)	*kaˈtɛŋ*	*kaˈtɛ̃*
to treat	*kɜkˈtɔ*	*kɜkˈtaŋ*

These changes are extremely irregular. Among those verbs for which I have sufficient data I list 25 different types of change. There are 10 verbs that change terminal *e* in the participial form to *æŋ* in the active form; 5 that change terminal *a* in the participial form to *aŋ* in the active form; 4 that change *ɔ* in the participial form to *aŋ* in the active form, and 4 that change *i* in the participial form to *iŋ* in the active form. There are 2 types of change to which belong 3 verbs each, 2 types to which belong 2 verbs each, and 17 types to which belong only one verb. No similarity in meaning unites the verbs that experience the same change.

In simple declarative sentences the participial form of the verb is followed by the untranslatable element *ŋa*, and the active form by the untranslatable element *mu*. The fact that *ŋa* always, *mu* never, follows nouns in simple statements like

pɔn ŋa	*tʃi ŋa*
snake	rattle
It is a snake.	It is a rattle.

is the simplest proof among several that we are dealing with the participial form, or the nominal-participial form of the verb in a construction like

mõk tʃi tɛ̃ tõ kɔˈðɛyɛ tɛ̃ ŋgæiŋ ŋa
Honey insect flower gather
This is literally "by the bee flower's-gathering".

tõ is an instrumental the function of which will be described elsewhere.

There is no difference of sense between the active and the participial forms.

8 *mu* is the untranslatable particle that is associated with the active form of the verb. It is to be considered together with *ŋa*.

9 *kũ* is a connective. It may be translated as "and" generally. It is used solely as a connective between clauses. It is never used as the English "and" to connect nouns, as in "the book and the pencil and the pen". Together with *tɛ̃* (see note 6) *kũ* has the effect of "and so" or "and then".

10 Tucan. A bird about the size of a very large parrot. It is black with a red and yellow throat and an enormous yellow bill.

11 him.

There are two sets of pronouns, subjective and objective. The subjective occur as subjects of those verbal constructions treated as active or expressing condition or location; the objective pronouns are objects of transitive verbs and postpositions, but are also subjects of verbal constructions that are treated as nominal. They also occur independently. I have called the subjective pronouns *verbal* because they occur only with verbs, and the objective pronouns *independent* pronouns.

Objective or Independent Pronouns:

It is I	*ɛyˈhaŋa*
It is you (sing. and plur.)	*aˈhaŋa*
It is non-feminine	*tiˈhaŋa*
It is she	*ðiˈhaŋa*
It is we	*aŋˈhaŋa*
It is they	*ɔŋˈhaŋa*

The *ha* is emphatic (see Note 3). The independent pronouns very often occur without it. *ŋa* is discussed under Notes 23 and 71.

The first person plural is both inclusive and exclusive.

Subjective or Verbal Pronouns:

I	*nũ*
you (sing. and plur.)	*ma*
non-feminine	*tã*
she	*ði*
we	*na*
they	*ɔŋ*

The third person singular feminine and the third person plural of the verbal pronouns are the same as the independent pronouns.

The independent pronouns may occur as shown. In answer to the question "Who is it?" the Kaingang always replies *ɛyˈha ŋa* "It is I". The verbal pronouns may never occur in such a sentence.

Simple declarative sentences are formed in the following ways: 1) When the verb is transitive and the construction participial the sentence is introduced by an independent pronoun followed immediately by the instrumental *tõ* (see note 23).

Example:

a ˈtõ ti pæˈnũ ŋa
You him shoot
You shot him.

2) When the verb is transitive and the construction active the sentence is introduced by the independent pronoun followed by the verbal pronoun if the subject is 1st or 2nd person.

Examples:

ɛyˈha nũ ti pæˈnũ mu
I I him shoot
I shot him.

aˈha ma ti pæˈnũ mu
You you him shoot
You shot him.

ayˈha na ti pæˈnũ mu
We we him shoot
We shot him.

In the third person the pronoun is followed by the element *ŋv*. (See Note 4.)

Examples:

tiˈha ŋv ti pæˈnũ mu
He him shoot
He shot him.

ðiˈha ŋv ti pæˈnũ mu
She him shoot
She shot him.

ɔŋˈha ŋv ti pæˈnũ mu
They him shoot
They shot him.

tã never follows the subject in these cases.

3) When the verb is active the verbal pronoun may come after the verb and be followed by *mu*.

Examples:

ti pæˈnũ nũ mu
him shoot I
I shot him.

ti pæˈnũ ma mu
him shoot you
You shot him.

ti pæˈnũ ŋv tã mu
him shoot he
He shot him.

ti pæˈnũ ŋv ði mu
him shoot she
She shot him.

ti piŋ[1] *na mu*
him shoot we
We shot him.

ti piŋ ŋv ɔŋ mu
him shoot they
They shot him.

[1] Plural because refering to many missiles. See Note 7.

In this type of construction the *ŋv* precedes the subject.

Rarely a sentence begins with *tã* or *ðĩ* followed by *ŋv*.

Sentences of type 2 are most emphatic.

ha may occur with the independent pronouns and with those verbal pronouns that are identical with them. *ha* can never occur with the other verbal pronouns. *ŋv* may never occur with an independent pronoun. *tɔ̃* can never occur with a verbal pronoun.

The independent pronouns are objects, the verbal pronouns are, with one rare exception, never objects. The exception is the rare occurence of *nũ* with *mblæ*, "together with" in a construction like, "together with me". Thus, the verbal pronouns are subjects only.

Kaingang objects always directly precede the element of which they are the object.

The independent pronouns are also the possessives and immediately precede the element possessed. For the sake of emphasis *ha* may occur with the possessive pronoun.

The independent pronouns occur with participial forms of the verb, with intransitive verbs and with nouns. Constructions with participial forms of the verb mean "By me his killing (I killed him)", or "By me its hanging up (I hung it up)", etc. Constructions with intransitive verbs mean "My running (I am running)", or "My sitting (I am sitting)", etc. The independent pronouns are also the possessives. The other set of pronouns occur with active forms of the verb — "I killed him", "He hung it up" etc. When they occur with intransitive verbs (I ran) the verb has not a nominal character. Active pronouns occur only with verbs and as subjects of sentences.

12 After, in the sense of "to follow".

The position of objects of postpositions is the same as the position of objects of verbs[1].

[1] Kaingang postpositions are true postpositions, and not nouns. One proof of this is that they are never followed by *tẽ* whereas their nominal objects often are.

13 Active form of the verb "to go". It means motion on land or in the air. There are separate verbs for "to swim", "to run" and "to float".

Kaingang verbs have no tense forms.

14 But. In general this is a disjunctive.

Sometimes the disjunctive force is very weak as in the following sentence:

ɛŋ ve ke nɛ tɔktɛ̃ ha lɔ
my appearance sit thus demonstrative along

ɛŋ ɲɛ haɲaŋlɔ tã ti mu
I sit he died

I was as I am now when he died.

15 He. See Note 11 also.

One should expect *ŋv* here before the *tã·ŋv* is generally very lightly enunciated and, therefore, I would sometimes miss it. Sometimes, however, it is really left out, but irregularly.

16 Active form of the verb "to see". See Note 7.

17 Negative particle. Some verbs take the active form when directly followed by the negative, some take the participial. Since the negative was not systematically investigated it is not possible to give a rule for this, nor to say that there is none.

Examples:

	Active	*Participial*	*Negative*
to call	*ki*	*kili*	*ki tũ nũ tɛ̃* Call negative I I did not call.
to give a long object	*ðiŋ*	*ði*	*haɲaŋlɔ ŋv tã a* But he you *mɔ̃ ði tũ ŋv tɛ̃* to give negative But he did not give it to you.
to understand, to know	*maŋ*	*ma*	*mak ˈtũ nũ tɛ̃* Know negative I I do not know.
to think	*aˈklæŋ*	*aˈklæŋ*	*tɔŋˈŋgetɛ̃ˈto nũ* This to I *aklæ tũ nũ tɛ̃* think negative I I never thought of this
to die	*ti*	*ˈtelɛ*	*e tʃi ˈtũ ŋa* I die negative I am not going to die

The commonest way of expressing the negative is that shown in the text, i. e. the idea negated is followed by *tũ*, which is followed by *tɛ̃*. Certain variations in meaning are expressed, however, by the use of elements other than *tɛ̃*. In the sentence

ˈtiha ˈaklæ tũ ɲa
He think negative stand

"He does not think (He never thinks)", the *ɲa* conveys the idea of continuation in time.

The parallel meanings of *tɛ̃* and *ɲa* have already been discussed.

When a noun is what in English would be the predicate nominative of "to be", or what in English would be the object of the verb "to have", the negative directly follows the noun.

Examples:

kaˈkðiˈ ði mbæ tũ ŋa
A personal name feminine husband negative

He was not *kaˈkðiˈ*'s husband.

a tɔ̃ e kɔɪ ka ˈtũ ŋa
You my people negative

You are not (of) my people; you are not my relative.

In these two sentences the constructions are the same. In the first one, however, the subject is not stated.

kulu 'tũ ŋv tɛ̃
Cloth negative
He has no clothes.

ti yvk tũ ŋv tɛ̃
His father negative
He has no father.

tɔk tɛ̃ yæ ŋaɪkɔktɔ 'tũ ŋv tɛ̃
That for medicine negative
I have no remedy for that.

kũ ŋv tã pa 'ðæyæ 'tũ ŋv tɛ̃
Then he foot appendage negative
.... and he has no toes.

ŋgɔyo tũ ŋv tã tɛ̃
Water negative it
No water (There is no water).

Conditions are treated in the same way:

tuyu 'tũ tã tɛ̃
Strong negative it
It is not strong (hard).

kuvɔlɔ 'tũ ŋv tã tɛ̃
Distant negative it
It is not far.

These sentences are all equally clear expressed in terms of "to be". Thus: "He has no clothes" becomes, "His clothes are not"; "He has no father" becomes "His father is not"; "I have no remedy for that" becomes "There is no remedy for that". (This is literally what the sentence says, but although the difference between the literal meaning and the context interpretation is real the Kaingang are not troubled by it). "He has no toes" becomes "His toes are not".

Thus the *ŋv* in these constructions refers to the third person subject. In the fifth example of the last series the subject is actually repeated, whereas in *ŋgɔyo tũ ŋv tɛ̃* "No water", although the meaning is the same the subject is not repeated.

In the following sentence there are 2 subjects but one of them has no verb:

ɛŋ'ha nũ yvk tũ ŋv tɛ̃
I I father negative
I have no father. "Father" is the subject of a sentence the best translation of which is "My father is not", but we are prevented from stating this as the actual translation because *nũ* is the verbal first person singular pronoun.

mbæ 'tũ nũ nɛ
husband negative I sit
"I have no husband". As soon as any other person as subject is substituted for the 3rd person the *ŋv* disappears.

18 Active form of the singular verb, "to arrive". Participial form, *ta'vi*. Plural, active: *'yulu*. Plural participial, *'yulu*.

19 To say. Participial and active forms are the same. It is used only as a verb of reference to something that has just been said. In the question, "What did he say?" the verb *tan* (participial) *tv* (active), "to tell" is used. The reply to the question is given, and terminated by the expression *'ke ŋv tã mu*, as seen in the text.

20 Baitaka. A small green bird that eats the corn.

21 Same.

22 To do. A verb of very irregular behaviour. This text example is an excellent instance of its extreme irregularity, for this is the only case in which this verb has this particular form.

Other Irregularities.

Verbs that change the stem in the active form also take the active form with the indefinite future particle *yæ*, with the definite future partivle *tɛ̃*, and with the contingent future particles *va.....hɔ*. Verbs that have the same form in both participial and active constructions do not change under any conditions. But the verb "to do" constitutes an exception to this rule.

Example:

Participial	Active	*yæ*	*tɛ̃*	*va.....hɔ*	
	keɲ	*ke*	*kæ*	*ke*	*ke*

"to do" also appears in idiomatic constructions.

Example:

tɔŋˈli	*ɔk*	*tɔ̃*	*keɲ*	
this way (manner)	they	instrumental	do	
ŋgæke	*mu*			
habitually				

This is what they do (when they make a rattle). At the same time the informant demonstrates the technique of making a rattle. For the meaning of *tɔ̃* here, see Note 23. *tɔ̃* refers to *tɔŋˈli*.

The same idea is expressed in a different construction in the following sentence:

tɔŋˈli	*ɔk*	*tɔ̃*	*ˈke*	*mu*
this way (manner)	they	instrumental	do	

This is what they do (when they make a fence).

At the same time the informant draws a picture of a fence.

What makes these construction with *keɲ* particularly irregular is that "to do habitually" always requires the active form of the verb.

The participial form of the verb "to do" may be discovered in constructions like the following in which the element *ke*, "to be about to do"[1] appears. This element always requires the participial form of the verb.

ˈhali	*a*	*tɔ̃*	*kɔˈðɨ*	*tɛ̃*	*tɔ̃*
what	you	instrumental	stone		instrumental
ket	*ke*	*ɲũ*	*ŋa*		
do	about to do				

What are you about to do with that stone?

The interrogative *ɲũ* always precedes *ŋa* when an interrogative sentence has this form.

The active form of the verb appears under expected conditions in the following sentences:

[1] This element is not related to the verb "to do". It is often translated by the Kaingang as "to want to". Thus, "What do you want to do with that stone?"

tɔŋˈli	*tã*	*ˈke*	*mu*
that way (manner)	he	do	

That is what he does (the woodpecker). At the same time the informant imitates the pecking of the woodpecker.

tɔŋˈli	*ŋv*	*tã*	*ˈkæ*	*kæˈke*	*mu*
that way (manner)		he	do	habitually	

That is what he does (the duck). At the same time the informant imitates the quacking of the duck.

The *ke* has changed to *kæ* under the influence of the succeeding *kæˈke*. Thus we are also led to conclude that *kæˈke* is a reduplicated form of the verb "to do".

keɲ also is used in expressions dealing with health:

ˈhali	*ti*	*tɔ̃*	*ke*	*ɲũ* *ŋa*
what	he	instrumental	do	

What is the matter with him?

This sentence is also translated, under different circumstances, "What is he doing?" When 2 *n*s come together only one is articulated. The above transcription gives, therefore, the impression that we are dealing with *ke* plus *nũ*. There are no instances of *keɲ* in a participial construction followed by *ŋa* only. The English sentences "He is not doing anything" or "He is doing something" are expressed by different mechanisms in Kaingang.

23 *tɔ̃* is the instrumental. Transitive verbs appear with *tɔ̃* in participial constructions.

In the sentence

tiˈha	*tɔ̃*	*mõk*	*ˈpe*	*ŋa*
He		honeybeer	to make honeybeer	

By him beer's making; i. e., he made honeybeer, we are dealing with the participial form of the verb.

In

kuˈveɲ	*ˈhaŋv*	*mõk*	
a personal male name		honeybeer	
pæŋ	*mu*		
to make honeybeer			

kuˈveɲ made honeybeer

the active form of the verb is used. There is no difference in sense between the two constructions.

In its function as an instrumental *tɔ̃* appears in sentences like the following:

ˈhali a tɔ̃ kɔˈðɨ tɛ̃ tɔ̃ ket ˈke ɲũ ŋa
What you stone do about to do

What are you going to do with the stone? Here both the subject and the stone are instruments of the contemplated action.

tɔ̃ also achieves an extended meaning approaching the English preposition "with":

tiha tɔ̃ klɜŋˈnɛ tɔ̃ ɲakˈðɔ ŋa
He meat defecating

By him with meat defecating; i. e. he defecated meat.

ðiˈha tɔ̃ ˈðɜk tɔ̃ kvˈla ɲa
She pine nuts to make soup

By her with pine nuts soup-making; i. e. she made pine nut soup.

In this way the function of *tɔ̃* in the following sentence becomes intelligible:

ɛŋ dzæ ha ma tɔ̃ ˈya ɲɛ
my song emphatic you sing sit

You sit singing with my song; i. e. you are singing my song.

tɔ̃ refers back to *yæ*, song. It has nothing to do with *ma*, the 2nd person singular pronoun. So also in the following sentence:

ũ tɛ̃ ɔŋ ŋv tɔ̃ aŋ ˈlɛ̃lɛ[1] *utˈpã*
other they our to be alive different

haɲ ɔŋ mu
imagine they

The others imagined that it was another group of our own people.

This is a sentence taken from a story in which a tiger attacks a man in camp at night. His companions hear the noise and imagine that some of their vendetta enemies have come to attack them. In other words "with it (the noise) they made (imagined) our people". The "with it" is expressed by *tɔ̃*.

The function of *tɔ̃* is the same in the following sentence:

kũ ŋv ɔŋ tɔ̃ ŋaɪkaˈvŋ mu
Then they to become frightened

Then it frightened them.

This sentence is taken from a text in which some Indians become frightened at the sight of a fire they themselves left burning. They think it is the fire of some other Indians and "with it (because of it) become frightened".

The almost verbal character of *tɔ̃* appears in the following sentence in which there is no verb:

e ˈtʃɔ̃ ɲuˈŋŋɛn kɜˈvæɪ haŋa
I brother blood

Here is my brother's blood.

This sentence is intelligible without the *eˈtʃɔ̃*. The sentence is taken from a story in which a man leaves his people. He leaves some of his lice on a rock. His brother finds the lice and feeds them. They change into children. He then goes to his people and tells them that he is going to lead his brother's blood to them. They doubt him. When he brings in the children he utters the above sentence. The *tɔ̃* emphasizes the fact that it is he who presents his brother's blood.

In the following sentences the *tɔ̃* is inserted to show that the noun is the object of the verb and not of something else:

kũ nũ ˈʃumbu tɛ̃ tɔ̃ nɛˈna ki
Then I buckshot on the surface on

ˈviɲ mu
to place

Then I put the shot on top (of the powder).

This sentence refers to the loading of a cartridge. If the *tɔ̃* were not there it would seem as if something (the powder in this case) were placed on top of the shot instead of the reverse. It is thus made clear that "buckshot" is the object of the verb and not of the postposition.

[1] *aŋˈlɛ̃lɛ*, literally „our alive, our to be alive" or „our life" means „our people". When followed by *utˈpã* it means „another group of our own people."

So, also, in the sentence

kũ ɔŋ hɔt kũ klɛ̃ ka'lɜ tɛ̃ tɔ̃
Then they make and on top lance-head

klɛ̃ nɛ mu
on top to place

After making (the lance shaft) they put the blade on top.

The *tɔ̃* makes clear the fact that the head was placed on top of the shaft and not that something was placed on the head. It would, literally, mean that without the *tɔ̃*. In other words *tɔ̃* shows that "blade" is the object of the verb and not of the postposition.

tɔ̃ also occurs with intransitive verbs.

Examples:

With *tɔ̃*	Without *tɔ̃*
1) *ti'ha tɔ̃ ku'te lɔ tɛŋ ŋa* He forest through go He is walking through the forest.	*e tʃɛŋ ŋa* I go I am going.
2) *ti'ha tɔ̃ taı lɔ ta'ðili ke ŋa* He coconut tree along ascend about to He is about to ascend the coconut tree.	*a 'ha taı lɔ ta'ðili ŋa* You coconut tree along ascend You ascended the coconut tree. *taı lɔ ti taðili 'ke ŋa* coconut tree along his ascend about to He is about to ascend the coconut tree. *taı lɔ e tʃa'ðili ŋa* Coconut tree along I ascend I ascended the coconut tree.
3) *ði tɔ̃ nde kɔ'ŋgɔ nũ yæ ŋa* She what sick What is the matter with her?	*ði kɔ'ŋgɔ ŋa* She sick She is sick.
4) *e tʃɔ̃ ũ ɔŋ mblæ nɛ ŋa* I other they together with sit I am sitting with some others	*ɛŋ 'ha nɛ ŋa* I seated I am seated. *ha'ka nũ nɛ* Here I sit Here I am (or sit).

The type of construction illustrated in the right-hand column is very common among intransitive verbs, but rare among transitive verbs:

ɛŋ ŋaı 'tʃaya ŋa
My reflexive kill

My self-killing; i. e. I killed myself.

ɛŋ ha e tʃɔ̃ ŋaı 'tʃaya ŋa
I I reflexive kill

I killed myself.

Without *tɔ̃* the subjects of all of the sentences in the left-hand column would be possessive pronouns, thus:

1) His forest-through-going.

2) His coconut tree-along-about-to-ascending.

3) Her what-sickness.

4) My other-together-with-them-sitting.

Often the subject of an intransitive verb does have the force of a possessive pronoun, as shown in the right-hand column. Never-

theless, as soon as some other element is introduced between the subject and the verb *tɔ̃* is introduced also after the subject to avoid a feeling of awkwardness. The second example in the right-hand column, however, illustrates the fact that this is not a necessity. So, also, in the third and fourth examples in the right-hand column we see that as soon as, by the different arrangement of the elements of the sentence, the subject pronoun directly precedes the verb *tɔ̃* drops out.

The examples in the right-hand column illustrate forcefully the fundamental nominal-participial character of verbal constructions with *tɔ̃*. The examples in the right-hand column should be read, in order:

My going
Your coconut-tree-along-ascending
Along the coconut tree his about-to-ascending
Her sickness
My sitting
I sit here

tɔ̃ also functions in appositional expressions like the following:

e kɔ'kla[1] *tɔ̃ ku'ðvŋ*
My a male personal name
My *kɔ'kla, ku'ðvŋ.*

ɲɔ̃ a yi tɔ̃ ða'tɛ tɛ̃
Mother, your child a personal name
ŋv 'ti mu
die
Mother, your child, *ða'tɛ* died.

aŋnɛ'lɔ̃ tɔ̃ nde ɲɔ
A female personal name what lie
Which *aŋnɛ'lɔ̃* (are you talking about)?

I am painfully aware that there are still a number of stray ends in the use of *tɔ̃* that I cannot place. I do not, however, at present see that any other category or any wider conceptualization of this element would serve to include all of the uses of which I have spoken.

[1] The term for the man who treats ceremonially Ego's umbilical cord.

24 An element used when an action is repeated on successive occasions. Its most usual position, to which there are rare exceptions, is directly after the subject. It is untranslatable. It often occurs with *mbaɲ* (see Note 31), which always immediately precedes *mu* and means "again".

25 To come. Active, singular, *ka'tɛ̃*; participial, singular, *ka'tɛŋ*; plural, *ka'mũ* (Active and Participial).

26 A bird with which I am not aquainted.

27 A common device in the formation of subordinate clauses is to have the subject of the subordinate clause possess the verb. In that case the verb is in the participial form. I give no examples because although there are innumerable ones they are all exactly of the same type as that in the text. This part of the sentence is translated, "..... when he went away then....". Literally it is "... then, his going, and so...".

28 Participial form of the verb "to go". The following element always requires the participial form of the verb.

29 Again. Refers to an action repeated. *mbaɲ* always directly follows the verb. It requires the participial form. Thus *mu* cannot act at a distance from the verb. This is characteristic of Kaingang syntax in general: All elements that effect other elements may do so only if they *immediately* follow them. The following elements effect verbs in the same way as *mbaɲ*:

'tʃvlv to wish to
kaɲ to finish; to terminate
væɲ to do something before something else or before somebody else; to do something "first" (and then to do something afterwards).

These are all, really, verbal derivatives.

30 Active form of "see"; participial, *ve*.

31 *ɛ* is a 3rd person independent pronoun. It serves the 3rd person in both feminine and non-feminine, and in both singular and

plural. It is used when a 3rd person object is possessed by the same 3rd person subject. Thus ɛ means "own".

Examples:

kũ ŋv tã ɛ ˈndo nɛyˈviŋ nɛ
then he his arrows make sit
Then he was making his arrows.

kũ ŋv tã ɛ ˈplũ ði mblæ
then he his wife feminine together with

ŋv tã ˈnɔ mu
he lie
Then he was lying down with his wife.

ti ˈha tɔ̃ ɛ ˈviyi mɛ ˈhɔt kũ kɔˈtĩ ŋa
he his bow distributive make then smooth
He worked over his bow until it was smooth.

aˈŋglɔ ði tɔ̃ ɛ yi
female personal name feminine her child

pæˈða ma
nurse
aˈŋglɔ is nursing her child.

kũ ŋv ɔŋ ɛ ˈplũ tɛ̃ ɔŋ ɔŋ ˈlæ kũ
then they their wife them them leave and....
Then they left their wives and.....

When a sentence or a sequence of sentences have third person subjects and objects (He [A] killed his [B's] dog) confusion may be avoided by the use of the pronoun ɛ. The following sentences are taken from the text of a story in which a man with a snake guardian spirit wishes to kill people. He steals their hair, feeds it to the snake, and they die. Another man, whom we shall call A, watches him, and when the murderer cuts off the hair of A's daughter A cuts off the hair of the murderer's wife and puts it in the place of that of his own child:

ˈkũ ŋv tã ɛ ˈyi ði klɛ̃ kiˈki
then he his own child feminine head hair

tɛ̃ kɔˈna kũ tã ˈmbaŋ mu mbat ˈkɔlɔkũ
look for and he take take afterwards

tã ti plũ ði klɛ̃ kiki ha ˈki ṇu
he his wife feminine head hair emphatic cut
Then he (A) looked for his (own) daughter's hair and took it. After taking it he cut his (the murderer's) wife's hair.

The story goes on to tell how the murderer unwittingly gave his own wife's hair to the snake.

haŋaŋˈlɔ ŋv tã ɛ ˈplũ ði klɛ̃
but he his own wife feminine head

kiki ˈha ŋv tã pɔn tɛ̃ mɔ̃ ˈnɛ mu.
hair emphatic he snake to give.
But he gave his (own) wife's hair to the snake.

A now burns the snake and comes back, but the murderer's wife is dying.

ˈkũ ŋv tã ˈvæk tɛ̃ kaˈtɛ̃ mu muŋaŋˈlɔ
then he see come in the meanwhile

ŋv ti ˈplũ tɛ̃ ði ˈtɛlɛ nɔ
his wife feminine die lie
When he (A) saw this (i. e. that the snake was burnt up) he came back. But in the meanwhile his (the murderer's) wife was dying (lay dying).

Temporal subordinate clauses are often formed by the introduction of ɛ followed by the instrumental directly after the 3rd person subject pronoun of the main clause. In this case the verb appears in its participial form and is followed by the connective *tɛ̃ kũ*.

Examples:

ˈkũ ŋv tã ɛ tɔ̃ ˈve tɛkũ ŋv tã ˈũ tɛ̃ ɔŋ
then he he see and so he other them

mɔ̃ ŋv tã ˈtv mv
to he tell
Then, when he saw it, he told it to the others.

kũ ŋv tã ɛ tɔ̃ vˈyolo tɛ̃ ˈve tɛ̃ kũ ti ˈvu
then he he tapir see and so him chase

kaˈtɛ̃ mu
come
Then, when he saw a tapir, he came along chasing it.

ɛ is also used unsystematically with the element *yæ*, "in order to". This element

requires the participial form of the verb. There is an example in the text, l. 25. But in l. 47 *tɔ̃* does not appear.

Other examples:

ti ha ŋv ɛ tɔ̃ ˈmoŋ loŋ yæ
he he honey beer warm in order to

ŋv tã kɔðɨ klɛ̃ ˈpɛ̃ mu
he stone on top fire-wood

Then he put fire-wood on the stones to warm the beer (i. e. he heated rocks in the fire in order to use them to warm the beer).

kũ ŋv ɔŋ ɛ tɔ̃ ti pæˈnũ
then they they him to hit with a projectile

yæ ŋv ɔŋ ti to paŋkˈpaŋ mu
in order to they him to shoot at repeatedly

Then they shot at him repeatedly in order to hit him; i. e. then they fired at him repeatedly.

But the following sentence is an exception to this practise:

kũ ɔŋ ti ŋglɔkɔˈðiŋ dzæ
then they him to pierce the lower lip in order to

ðæ kɔ nɛŋˈviŋ mu
in order to stick make

Then they made sticks in order to pierce his lip.

In the following sentences, in which confusion between the subject of the independent clause and the subject of the dependent clause might arise it is not avoided through the use of *ɛ*:

paˈtæ hatɔ̃ ɛ tɔ̃ ti ˈve kũ ti
a male personal name he him see and his

ðe klike mu
heart split

When *paˈtæ* saw him *paˈtæ*'s heart split (i. e. he became angry).

ti ˈhaŋv ɛ tɔ̃ patæ ˈve tɛ̃ kũ
he he a male personal name see and so

ti ðe ˈklike mu
his heart split

When he saw *paˈtæ* he became angry with *paˈtæ*.

The other alternative "When he (A) saw (B) (B) became angry" I did not get.

In the last 2 examples the discourse is in the form of a main and a subordinate clause. The subject is the same for both, but it is not repeated in the subordinate clause. There is no rule, however, that when two actions by the same subject follow upon each other the discourse must take the form of a main and a subordinate clause in which the subject is not repeated. Thus, in the following —

kũ ŋv tã ɛ taˈvi tɛ̃kũ ŋv tã tv mu
then he his arrive and so he tell

Then, when he arrived he told — we have two clauses in which the action expressed in the subordinate clause is carried out by the same subject as that of the main clause. Yet the subjects of both clauses are expressed.

So, too, in the following sentence, although the subject of the second clause (in English, a coordinate clause) is the object of the main clause, it is not stated:

ti ha tɔ̃ ɛ viɣɨ mɛ ˈhɔt kũ kɔˈtĩ ŋa
he his bow distributive make and smooth

He is fixing his bow and it is smooth; i. e. He is smoothing his bow.

Here, however, context makes the meaning clear.

In the following short text *ɛ* is used as the subject of the last sentence. But the subject of the last sentence was the object of the preceding sentences:

kũ ŋv tã ˈma kũ ɛ tɔ̃ ti mbaŋ dzæ ke
then he hear and he him kill about to

mu ti yæ ˈyatke mu ˈkũ ŋv
him for open the mouth then

tã ɛ tɔ̃ ti kɔmaŋ mu
he he him fear

Then when he (the tiger) heard this he (the tiger) was going to kill him (the tick) and opened his (the tiger's) mouth for him (the tick). Then he (the tick) became afraid of him (the tiger).

The same is true in the following text:

kũ ŋv tã ɔŋ dʒo vaɪˈyiŋ mu ðvŋ
then he them lie in wait for Brazilian

utˈpili pæˈnũ mu kũ ŋv tã ˈɛ tɔ̃
single shoot at and hit then he he

ˈɛ ha ti pæˈnũ kũ tã ti ˈnɛvi-
he him shoot and he him chop into

kukæŋ mu
little pieces

Then he lay in wait for the Brazilians and shot one. Then he (the Brazilian) shot him and chopped him into little bits.

Thus *ɛ* is used when the object of one sentence becomes the subject of the succeeding sentence. But this usage is not systematic:

kũ ŋv tã ti ŋaðɨ ti
then he his away from the body him

kuŋˈmɛ ɲa ŋv tã ti klɛ̃ tɛ̃ tɔ̃ ˈplu kũ tã
seize stand he his head slip and he

ti m̃baŋ mu
him killed

Then he (the man) wrestled with the tiger at arms' length until his hands slipped from his (the tiger's) head. Then he (the tiger) killed him.

In the first place the first *ti* refers to the man while the second *ti* refers to the tiger. The third *ti* also refers to the tiger, but the fourth refers to the man. In the second place, although the object of the first clause (wrestled with *him*, literally, seized *him*) is the subject of the last sentence or clause, *ɛ* does not appear. *ɛ* in fact does not appear at all in this short text. But everyone knows the plot of this story.

In the following sentence there is no way (syntactical or morphological) of telling who the subject of the second clause is:

kũ yi tã ŋaɪˈpili tɛ̃
then it is said he a male personal name

pænũ ha mɔ̃ tã ðoˈpaɪ ke mu
shoot at and hit about to he ducked

Then he was about to shoot *ŋaɪˈpili* when he (*ŋaɪˈpili*) ducked.

In this idiomatic construction, taken from a story told in the full rush of excited interest, and not dictated as a text, there is only one true verbal construction with two different subjects and two actions. The action of being about to shoot is expressed by the verb meaning "to shoot at and hit" followed by the element *mɔ̃* which means "to be about to do (something)". The true verbal construction is "(he) ducked". But if one did not know the story, or if it did not occur to one that the shooter would not duck, it would not be clear who ducked.

We cannot talk of two sentences here nor of two clauses but it is clear that the object of one action becomes the subject of an immediately succeeding action. Yet no grammatical device is used to distinguish the subject of the second action from the subject of the first.

32 Stone.

33 *ki* and *ka* as locatives mean "inside" or "in". They also may mean "on" when they are used with objects that have no broad surface or are not raised off the ground. When the object has a broad surface or is raised off the ground the prepositions *nɛˈna*, "on the surface" and *klɛ̃*, "on top of" may be used.

Some verbs take *ki* and some take *ka*, but there are no grammatically defineable classes of verbs, one taking *ki* the other taking *ka*. There is, however, a tendency to use *ki* with plural verbs.

I have found only two cases in which *ka* and *ki* were used as locatives with the same verb.

The following is a partial list of verbs that take *ki* and of those that take *ka* when these elements are used purely as locatives:

I

ka

(1) to give or place one small roundish object *nɛm*

	ka
(2) to place (one) object that is set on the ground[1]	*ðaŋ*
(3) to give a long narrow object, or to place a long narrow object horizontally	*ðiŋ*
(4) to lie	*nɔ*
(5) to sit	*nɛ*
(6) to place a lance or arrow head on the shaft	*puŋ*
(7) to thrust or sink a long sharp object into something else	*nɛˈðæŋ*
(8) to wash the (entire) body	*kɜˈpe*

II

	ki
1) to give or place many objects (of whatever shape)	*viŋ*
(2) to cook	*ˈndæɪŋ*
(3) to wash clothes	*ðɔ*
(4) to pour	*ˈtʃuɪŋ*
(5) to sit	*nɛ*
(6) to place (several) objects that are placed on the ground	*kɔˈðaŋ*
(7) to break a straight object	*ˈmblɜyɜ*
(8) to thrust or sink a long sharp object into something else	*nɛˈðæŋ*

It will be noted that (1), Column II is the plural for (1) and (3), Column I, and that (6), Column II is the plural of (2), Column I.

The following sentences illustrate the use of *ki* and *ka* in the rare instances in which they occur with the same verb:

yæ nũ ˈɛt ka nɛ
future particle I house in sit
I am going to live in that house

kũ tã nɛˈyɔ vvŋˈvvlv tẽ ˈka ŋaɪndʒɨlɨ kɔna
then he smoke boiling in laughter eye
ˈplɨ nɛ kæke mu
open sit habitually
Then he would sit in the clouds of smoke laughing with his eyes open.

The meaning of *nɛ* in these sentences is essentially the same as in the text sentence, where it is seen that *ki* is used.

a tɔ̃ e ka nɛˈðæŋ dʒæ a ŋẽ ŋa
you me in thrust in order to your speech
You are saying that in order to thrust into (i. e. stab me) me.

kũ ŋv tã ɛ ˈndo ɛ ˈtẽ dʒɔ ki
then he his arrow his go place where in
nɛðæt kũ.....
thrust and
Then he thrust his (own) arrow (or arrows?) into his (own) trail and.....

ki may have been used here because arrow is plural.

In the following sentences *ka* and *ki* mean "on":

kũ tã ˈmblũlu ka ti ˈtʃɔ
then he ciþó (a vine) on he to be (a long object)
tẽ ˈki mu
cut
Then he (A) cut the vine on which he (B) was hanging.

ˈkulu ˈka ti ˈyi ŋa
cloth (blanket) on him lay
(They) laid him on a blanket.

kũ ŋv tã kɔɪka ˈlovo ki pvp ke mu
then he sky hole on alight
Then he alighted on (the edge of) the hole in the sky (i. e. the door of the sky).

ka and *ki* are used also as demonstratives. They mean "here" or "there".

Examples:

(1) *aˈyv ka ma nɛ*
a female personal name there you sit
aˈyv, are you there?

(2) *ɔ̃ haˈka nũ nɛ*
yes here I sit
Yes. Here I am.

[1] This verb is used for a miscellaneous collection of objects. The definition given above is the native one. Because of its association with "objects placed on the ground" it is used for objects not ordinarily placed on the ground when they happen to be so placed.

(3) *ɛŋ 'dʒo tɛ̄ ŋv ka nɔ*
my arrow there lie
My arrow was there.

(4) *'halikelɔ 'tā yæ tatɛ̄ka 'ɲa*
how long he indefinite future there stand

yæ
indefinite future
How long will he remain there?

(5) *tɔŋha'ka ŋv tā nɔ*
here he lie
He lived here.

(6) *halike'lɔ ɔŋ dʒæ tatɛ̄ki nɔ*
how long they indefinite future there lie

yæ
indefinite future
How long will they remain there?

In sentence 3 *nɔ* appears with *ka*, but in sentence 6 *nɔ* appears with *ki*. This is because *nɔ* is used for the plural of *ɲa*. Otherwise *nɔ* takes *ka* as in 5.

nɛ, to sit; *nɔ*, to lie (singular); *ɲa*, to stand (singular), occur with *ka*. *ta'viŋ* to arrive (one person); *'yulu*, to arrive (many people); *va'kðun*, to pile up; *'tɛlɛ*, to die (one person), occur with *ki*. *ɲa* also appears with *ki*, but only when *ki* means "inside":

kɔyake 'ki ŋv tā ɲa
the hollow of a tree in he stand

kæ'ke ŋa
habitually
He lives in the hollows of trees.

ka also means "the inside of" anything:

Examples:

inside of the mouth	*ɲatki'ka*
bottom of canoe	*kanu'ka*
inside of him	*ti 'ka*
the sole of my foot	*e pat 'ka*
the palm of my hand	*ɛŋ ɲɛ ŋga 'ka*

Both *ka* and *ki* occur as temporal demonstratives. In this case they are often used to form subordinate clauses:

Examples:

kū ŋv tā ɛ tɔ̄ 'put 'tʃi ka
then he he dive long time

'yut kæke mu
emerge (appear) habitually
Then he would dive and come up after a long time.

'ðvk tɔ̄ ði 'taɪ kɔlɔɪ tʃi 'ka
the Brasilians her kill afterwards long time

ŋv ði 'ti mu
she die
Long after they killed her (A) she (B) died.

'nvlv læŋ'le ū tɔ̄ hali'ke 'ki ŋv ði
sleep two other identical she

'ti mu
die
She died four days after, i. e. she died in four days.

la ū 'ki ŋv tā 'ŋgluŋ mu
sun other it burn
It was burning on another day, i. e. A day or so afterward it was still burning.

As a temporal demonstrative *ki* combines with *ha* just as it does in the formation of spacial demonstratives. *ka* does not occur with *ha* in the formation of temporal demonstratives.

Examples:

numiŋgo ha 'ki ku'ta
Sunday fall
It will fall on Sunday, i. e. It will rain on Sunday.

nvlv pili ha'ki mbv tɛ̄
sleep one a female personal name

ði 'taɪ tɛ̄
feminine kill
In one day *mbv* was killed (along with her son).

ti tɔ̄ ɔŋ mɔ̄ yaɲ ha'ki ku'lak tɛ̄ mu
He them to sing morning
He sang for them until morning.

mo'ɲa *tẽ* *væk* *'tũ* *ha'ki* *ŋv*
a male personal name see not

tã *ɔŋ* *mblæ* *nɛ*
he them with sit

He lived with them before he saw *mo'ɲa*.

Some verbs regularly occur with locatives. All of these verbs express related psychological states.

Examples:

ki ŋaɪ mbik'ti to dream about something
ki ŋa'ẽ to desire very much
ki a'klæŋ to remember
ki ku 'tuŋ to forget

e'tʃõ *ki ŋaẽɪ* *'ke ŋũ ŋa*
I desire very much I

I'll want some badly.

ɛŋha e'tʃõ *yv* *ki* *a'klæŋ* *ŋa*
I I father remember

I am thinking of my father.

ki nũ ku'tu tẽ
I forget

I forget.

ɛŋ 'ha nũ ɛŋ 'viɣi ki ku'tuŋ mu
I I my bow forget

I forgot my gun.

34 to sit. In general one small or roundish object sits; long objects in horizontal position lie and long objects in vertical position stand. Thus, in the text, "The bee-hive is sitting inside a stone", i. e. ".... is inside a stone".

nɛ is never followed by *mu*, but it may be followed by *ŋa*. Generally it is not followed by a verbal particle at all.

nɔ is used for the plural of *nɛ* when it means "to be" (not when it means "to sit"), and of *ɲa*.

35 all.

36 This postposition implies motion towards in line l. 18 and in line l. 21; in line l. 20 it means "against"; in l. 25 it might be considered a demonstrative. The translation is "..... there were many of them *there* in order to pierce it". In l. 35 *to* means "about". So, also, in l. 37 ".... we are making this noise about piercing this hive.....", or "..... there is a noise because we are piercing this hive." In l. 83 *to* is part of the verb.

to may also mean "beside":

'kũ ɔk ti to nɔ
then they him beside lie

Then they stayed beside him.

A related meaning is the following:

'nde to a 'nɛ nũ ŋa
what beside you sit

What are you sitting beside?; i. e. What are you doing seated there?

In these last two instances the use of *to* is related to its use in l. 25.

to also means "because of":

kɨɣɨ tẽ ŋv 'to ŋv tã ɔŋ
owl because of it he them

dʒɔŋgak'taŋ mu
pity

The owl pitied them because of it.

kũ ŋv tã ɛ 'tẽ kũ ta'vi tẽkũ 'to
then he his go and arrive and so because of it

ðɨ to'ɲu mu
her angry

Then, when he went away and arrived (back) he was angry with her because of it. When *ɲu* means "to be angry with" it is always preceded by *to*.

ɔŋ 'yvk tẽ to ti tõ 'lẽlɛ ŋa
their father because of he awake

Their father remained awake because of it.

to may also mean "over" in the sense of spreading over a surface:

ndæt ki'ki tõŋv tã to 'viŋ mu
something feathers he over place

He put feathers all over it.

ɛŋ ɲak'ðɔ ŋv e tʃo 'ŋlẽ tẽ e kɜ'pe
my feces me over smear me wash

lɔ
imperative

I am all smeared over with my feces. Wash me!

to also means "from", in

kv 'to ŋv tã ku'ta mu
a vine from he fall
He fell from a vine.

Certain verbs always occur with *to:*

to 'aɪnŋge to be ashamed (of something)
to 'ɲu to be angry (because of something; with someone)
to a'klæɲ to think (about something)
to'vaɪ to stop doing something
to ɲɛ'põ to order (to do something)

e tʃõ lɔ tõ ɲak'ðɔ tẽ 'to nũ 'aɪnŋge mu
I ant defecate I ashamed
I am ashamed because I defecated ants.

kũ ŋv tã to 'aɪnŋge mu
then he ashamed
Then he became ashamed.

The separation of *to* from the rest of the verb by the pronoun *nũ* proves that *to* is not part of the verb. In Kaingang there is no infixing

ti kɔ'ŋgɔ to a'klæt kũ
his sick (pain) think and.....
They think of his pain and ....

When *a'klæɲ* means "to remember" it occurs with *ki*. See Note 33.

aha tõ mbæŋ dʒɔ'klã tẽ to ɛŋ ɲɛ'põ ŋa
you axe handle me order
You told me to make a handle for the axe. (You told me to make an axe handle.)

37 Plural form of the verb "to go". Participial and active forms the same.

38 To pierce the hollow of a tree for honey; to chop out a bee-hive. Plural participial, *pik'ðiɲ*; plural active unknown. Singular participial, *pæ'ðiɲ*; singular active, as in text.

39 Cutting edge. *ya* means tooth, beak, axe (blade), the edge of a knife etc.

40 To break. Used of straight objects. This verb sometimes occurs in its participial form, as in the text, when we should expect the active form, *'mblɔɪ*. In the following example the active form occurs under the same conditions in which the participial form appears in the text:

ka'ŋglæk ði ŋv ti ndo
a female personal name feminine his arrow

tẽ ti tõ ka'ðaŋ kũ pæle ha
he place in the bow and draw the bow

mõ ti nɛ'ŋga ka tẽ ki tõ 'mblɔɪ
try to his hand inside in break

kæke ɲa
continually stand
Whenever he would place an arrow in his bow and try to draw it *ka'ŋglæŋ* would break the arrow in his hand, until.....

The same occurs in l. 24. This happens because "break" occurs in an intransitive context. "They broke their beaks" is not the same as "Their beaks broke". The translation in the text should be "Their beaks would always break". In l. 24 it is "His beak broke"; but in the example given above "break" is transitive, i. e. "She would always break his arrows". So also in the following:

kũ ŋv yv'plu ŋv to 'tẽ kũ
then a male personal name to go and

ti nɛŋ'ndv mblɔɪ kũ mbɔ ka'tẽ
his lower leg break and carry come
Then *yv'plu* went there and broke off this (the tapir's) lower leg and came over with it.

Here we have the active form of the verb, whereas in

... tẽkũ ŋv ti ka hatɜ ki 'mblɜyɜ mu
and so his inside there in break
... and so it broke off inside of him — we have the intransitive form of the verb.

41 Habitually, continually. See Note 33.

42 See also Note 10. The indirect obect is repeated here but the repetition has no grammatical significance. It is as if we were to say, "Then they said to the tucan — to the tucan....."

43 The dative and indirect object are formed by combining this element with the person for whom a thing is done or with the indirect object. The *mɔ̃* always follows the other element:

eŋˈmɔ̃ to say to me
eŋˈɲɔ̃ for me, or to give to me
aˈmɔ̃ to you, for you
tiˈmɔ̃ to or for non-feminine
ðiˈmɔ̃ to her, for her
aŋˈmɔ̃ to us, for us
ɔŋˈmɔ̃ to them, for them

Thus the dative-indirect object form appears only with the independent pronouns.

When *mɔ̃* appears with *eŋ* the former often has a verbal force, and in that case appears without a verb:

a tɔ̃ eŋ mɔ̃ ˈŋɛ̃ a tɔ̃ ãta
you me to speak you the aforesaid
like ˈmaka nɛ
the same without sit
Do without what you spoke to me about!

kaŋˈnda tɛ̃ ha tɔ̃ eŋ mɔ̃ ɔŋ mblæ
a male personal name me to them with
ðvk to teŋ.
Brasilians to go.
kaŋˈndaŋ said to me "Go with them to (fight) the Brasilians"

In the first sentence there is a verb — "to speak" —, but in the second there is none. The verb *taŋ*, to tell, however, requires the *ɲɔ̃* form:

ˈnde yæ ma eŋ ˈɲɔ̃ taŋ yæˈke
what because of you me to tell about to
ˈmaka eŋ ɲɔ̃ paˈpiŋ mu.
without me to to not tell.
Why did you refuse to tell me without even trying to tell me?

The following is an example of *ɲɔ̃* used to form the indirect object:

e ˈplũ ði eŋ ɲɔ̃ ðaiˈkɔlɔ ˈnɛm
my wife feminine me to fire give
My wife, make fire for me! i. e. My wife, give me fire!

The following are examples of its use in the dative:

eŋ ˈɲɔ̃ kɔ tɔ̃ kuŋˈdzuŋ kũ ŋglaᵽ.
me for stick perforate and roast.
Spit this for me (with a stick) and roast it!

kuˈðvŋ eŋ ɲɔ̃ ti mɔ̃ mõk
a male personal name me for him for bee-hive
pæˈta
pierce
kuˈðvŋ, get honey for me, for him!

The following are examples of *mɔ̃* in the other persons of the pronoun:

ti ˈha tɔ̃ a mɔ̃ ndæ ũ ˈyi ˈke ŋa
he you to thing other give about to
He is going to give you something.

yæ nũ a mɔ̃ ɔk to vaiˈtʃiŋ
indefinite future I you for them spare
I am going to spare them for you (for your sake).

ti ha tɔ̃ ti mɔ̃ nɛŋŋaŋ ŋa
he him to ascertain (to mark)
He is marking out for him, i. e. He is indicating the direction to him.

ˈkũ nũ ti mɔ̃ laiŋlai ŋgæˈke mu
then I him for work habitually
Then I worked for him.

ti nɔ ði mɔ̃ ti yiŋ mu
his mother feminine to him give
(They) give him to his mother.

mɔ̃ may also occur without any pronoun:

ɛ tɔ̃ ˈve kũ ɔk tɔ̃ mɔ̃ ˈŋɛ̃ yæ
they see and they to speak in order to
la to tukðɛn
sun to make a bundle with narrow bindings
ˈke ŋa
habitually, continually
They make the bundle in the daytime so that they can see it and talk to it. (This refers to a magical bundle to which the Indians talk.) *to* here would give the expression *la ˈto* the force of ".... when it is light...." or ".... when there is sun....".

44 "Come!" Some verbs take the participial and some the active form in the imperative. Still others have a special form, and still another group have two special forms. Those verbs the active and participial forms of which are the same also have the same form in the imperative.

Examples:

	Participial	*Active*	*Imperative*
to die	*'tɛlɛ*	*'ti*	*'tilɔ*[1]
to seize	*kaŋ'mɛ*	*kaŋ'mɛŋ*	*kaŋ'mɛlɔ*
to lead	*pæn'vɛlɛ*	*pæ'le*	*pæn'va*
to kill	*'mbaŋ*	*'mbaŋ*	*'mbɔlɔ*
to take	*vuŋ*	*vaŋ*	*'vɔlɔ*
			'va
to thrust into	*nɛ'ðæŋ*	*nɛ'te*	*nɛ'tā*
to stop	*'hutke*	*'hutke*	*'hutkæ*
			'hutke'lɔ
to roast	*ŋglaŋ*	*ŋglaŋ*	*'ŋgla*
			'ŋglaɱ
to cut several straight rigid objects	*'kle*	*'klæŋ*	*'klæ*
to wash (a single solid object)	*ku'pe*	*ku'pæŋ*	*ku'pelɔ*
to eat	*ko*	*ko*	*kv*
to give or place a small round-ish object	*nɛm*	*nɛm*	*nɛm*
to gather	*'ŋgæiŋ*	*'ŋgæŋ*	*'ŋgelɔ*
			ŋgæ
to shoot at	*paŋ*	*paŋ*	*paŋ*
to cut	*'kʉɱ*	*'kʉɱ*	*'kʉɱlɔ*
to shout, to call	*'kili*	*'ki*	*'kilɔ*
to adze	*kɜk'pō*	*kɜk'pō*	*kɜk'pōlɔ*
to pour	*'tʃuiŋ*	*'tʃuiŋ*	*'tʃuiŋlɔ*
to shatter (a pot)	*ku'ŋgaɱ*	*ku'ŋgaɱ*	*ku'ŋgaɱlɔ*
to carry (on the back)	*'tu*	*tæŋ*	*'talɔ*

[1] The element *lɔ* sometimes follows the imperative. But often it does not. In the above list I have given the imperative as I have it in my texts, with or without *lɔ*. The form with *lɔ* is more emphatic than the one without.

	Participial	*Active*	*Imperative*
to run	*lɜ'lɜ*	*lɜ'lɜ*	*lɜ'lɜlɔ*
to sing	*yaŋ*	*yaŋ*	*yaŋlɔ*
to throw (one object)	*ðvŋ*	*ðvŋ*	*'ðvŋlɔ*
to wash clothes	*ðɔ*	*ðaŋ*	*'ðɔlɔ*
to treat	*kɜk'tɔ*	*kɜk'taŋ*	*kɜk'talɔ*
			kɜk'tɔ
to ascend	*ta'ðili*	*ta'pli*	*ta'pā*
to pierce	*pæ'ðiŋ*	*pa'ti*	*pæ'ta*
to come	*ka'tɛŋ*	*ka'tɛ̄*	*katɛŋ'lɔ*
			ka'tɛŋ

I should have wished to obtain all the verbs on the above list with and without the element *lɔ*. Unfortunately this was not possible.

45 Axe. Also used of large beaks, like that of the tucan.

46 Large.

47 One person carrys small object. This element never occurs without another verb like *tɛŋ*, to go; *ka'tɛŋ* to come; *ɲa* to stand. Thus:

a 'ha ma klaŋ'dʒa mbɔ ɲa
you you knife carry stand
You have a knife.

mbɔ may be derived from the verb *mbaŋ*, (participial), *'mbaŋ*, (active); *'mbɔlɔ* imperative, to take.

48 Another idiomatic use of the verb *keŋ*, to do. It seems to be related to the use of *keŋ* in the following sentences:

ke kū ɛŋ 'viyi tɛ̄ 'vut kū aklæk 'tɛŋ
alright my bow take and hunting go
Alright, take my bow and go hunting.

ndv'miŋgo ke kū e tʃɔ̄ 'puŋ
Sunday and I to place the head of a

dʒæ e tʃɔ̄
lance or arrow on the shaft indefinite future I

put 'ke ŋa
place about to
I am going to place the head of the lance on the shaft on Sunday. (The force of this expression is "I'll wait until Sunday, *then* I'll etc.")

'ke *tẽ* *ŋv* *ði* *ve* *yæ*
..... so saying feminine see in order to

'tẽ *mu*
go

So saying she went to see.

49 In order to. *yæ* functions like the Spanish and Portuguese para.

Examples:

ti *ha* *tõ* *ɛ* *ndo* *yæ* *kɔ* *kaɪʃiŋ* *kɤm*
he his arrow for wood small cut

yæ *tɛŋ* *ŋa*
in order to go

He went to cut a small stick for his arrow.

kũ *tã* *ði* *mblæ* *ti* *yæ* *'plãla*
then he feminine together with him for weep

ni *tã* *'hutke* *mu*
a long time he stop

Then he wept with her for him a long time and stopped.

ðe'tʃa *yi* *ɔŋ* *dzæ* *pẽ*
a male personal name it is said them for firewood

kɔna'tẽ
wander around

It is told that *ðe'tʃa* walked about preparing the fire for them (for their cremation).

tɔktẽ *'yæ* *ŋaɪkɔktɔ* *'tũ* *tẽ*
that for remedy negative

There is no remedy for that.

ɛŋ *dzæ* *a'ma*
me for listen

Wait for me. (Watch out for me).

e *tʃõ* *a* *yæ* *'kɤŋ* *yæ* *ka'teŋ* *ŋa*
I you for summon in order to come

I come to summon you.

yæ also may function as does the element *mõ*, but rarely:

ɛŋ *'ha* *e* *tʃõ* *a* *ɲan* *a* *'yæ* *tu* *ŋa*
I I your food you for carry

I am carrying your food for you.

e *tʃõ* *ði* *yæ* *moŋ* *'mbaŋ* *ŋa*
I her for honey take

I am carring the honey for her, i. e. I am taking the honey to her.

yæ also occurs without any object:

kũ *ŋv* *tã* *'ðæ* *ŋaɪ'tʃɛyɛ* *nɛŋ'viŋ* *mu*
then he for iron prepare

Then he prepares iron for (them) (the arrows).

50 This element is really a general disjunctive. In this instance its effect is "now, in the meanwhile" or, "but in the meanwhile".

51 Many. This is evidently related to *mbɜŋ*, large.

52 To be (plural). I have already pointed out that *nɔ*, to lie, may be used alone for the plural of "to be". *nɔndɛ*, however, is more frequently used.

Examples:

kaɲa *'hɜ* *mblæ* *ku-*
a male personal name together with a male

ndaŋ *tẽ* *a'mɛn* *lɔ* *ti* *'tẽ* *tẽ*
personal name road along his go

ha'klẽ *ti* *yo* *nɔndɛ*
(on) him before are

kaɲa'hɜ and *ku'ndaŋ* were waiting for him on the road along which he (a third person) had gone. But:

kũ *ɔk* *ti* *to* *nɔ*
then they him beside are

Then they stayed beside him.

The latter example also is parallel to our text instance.

ði *yo* *ɔŋ* *nɔ* *ŋa*
her before their are

They were (born) before her. But:

a *kɜɪka* *ɔŋ* *ha* *ŋv* *nɔndɛ*
your relatives they are

Your people are (there).

The plural of *nɔ* regularly, and that of *nɛ* sometimes, is formed by placing the element *ɲaŋ* before them. But *nɛ* differs from *nɔ*

in that *ɲaŋ* is used to form the latter's plural only when *nɔ* means "to lie".

Examples:

'kũ ŋv klɛ̃ ɲaŋ 'nɔ
then on top lie
Then they lay down on (them).

ti 'plũ tɛ̃ ɔŋ ŋv læŋ'le ɲaŋ nɛ
his wife they two sit
He had two wives.

But also:

ti plũ ɔŋ ŋv læŋ'le nɔndɛ
his wife them two are
He had two wives.

nɔ is used arbitrarily to form the plural of *nɛ* and *ɲa*.

Examples:

ɛŋ 'ha nũ kɜ'yo ɲa kæ'ke mu
I I thin stand habitually
I am always thin.

ɔŋ ha ŋv kɜ'yo nɔ kæ'ke mu
they thin are habitually
They are always thin.

nde to a nɛ nũ ŋa
what beside your sit
What are you sitting beside? (What are you doing there?)

kũ ɔk ti to nɔ
then they him beside are
Then they stayed beside him.

53 A woodpecker.

54 The woman who treats one's umbilical cord ceremonially.

55 The feminine particle, which also means "she" and "her", follows all human feminine nouns and personal names.

56 Stone pestle.

57 Cloth. Any piece of fabric is called generically by this term.

58 Covered over. The first two syllables of a number of verbs are identical with the first two syllables of this one.

Examples:

(1) to wash (the body) *ŋaiɲɛ'pe*
(2) to command *ŋaiɲɛ'põ*
(3) to do something to someone *ŋaiɲɛ'vi*
(4) to waste time *ŋaiɲɛŋ'ndziɲ*
(5) to recite the origin myths *ŋaiɲɛ'klæɲ*

1 and 3 must be related in some way to *ku'pe*, to wash (a part of the body or a single object); *nɛ'vi*, to do; to make. The text verb may be related to *ndv*, behind; for *ndv* sometimes terminates with a contact *t* when followed by *k*. In all of the cases in which *ndv* ends with a *t* it is followed by *k*. 4 may be related to *tʃiɲ*, to grow old.

Certain verbs that begin with *ŋai* omit it when they have direct objects:

(1) *kũ ŋv ɔk tɔ̃ ŋaika'vŋ mu*
then they to be frightened
They were frightened.

(2) *e ka'vŋ ma mu*
me frighten you
You frightened me.

(3) *'ɲɛlɛ tɛ̃ 'plɜi tɔ̃ mɛ 'ŋlɛ̃*
child charcoal distributive smear
kæke kũ 'tʃi tɔk to ŋɛ̃
habitually and dark brown that about talk
kæke mu'haŋv ŋai'tʃɜɲ ɲɛlɛ 'tʃɜɲ
habitually to blacken child blacken
ŋa kæ'ke ɔŋ mu
habitually they
They smear the children with charcoal and then they are dark brown. When they talk about that they call it "to blacken". They say "The child is made black"; i. e. To smear a child with charcoal so that it is dark brown is called "to blacken". "The child is blackened" — that is what they say.

(4) *ti tɔ̃ ŋaiko yɔ'ŋgi ŋa*
he coitus very
He fornicates a great deal.

(5) *kũ ŋv kɔɪŋgɜk tɛ̃ vv'ŋqɔ tɛ̃ ka ɛ*
then man a larva during his

plũ tɛ̃ ko 'vaɪ kũ tɛ̃
wife coitus never and

So during the time of the *vv'ŋgɔ* men refrain from cohabiting with their wives.

(6) *kũ ɔŋ ŋv ŋaɪka'ŋglɔɳ mu*
then imitate

Then they imitated.

(7) *kũ ŋv ɔŋ paŋ ka'ŋglɔɳ mu*
then they shoot imitate

Then they experimented shooting.

In the following sentences, containing verbs similar in structure to the text example, we shall also see that when the verb has a direct object *ŋaɪ* disappears:

(1) *eŋ ha e tʃɔ̃ ɲɛŋga ku'pe e tʃɔ̃ ŋaɪɲɛ 'pe ŋa*
I I hand wash I wash

I am washing my hands.

(2) *eŋ ha e tʃɔ̃ ɛ tɛ̃ to ŋaɪɲɛ'põ ŋa*
I I house order

I ordered the house (to be made).

(3) *a ha mbæŋ dʒɔklã tɛ̃ to eŋ ɲɛ'põ ŋa*
you axe handle me order

You ordered me to make a handle for your axe; i. e. I was ordered to make a handle for your axe.

(4) *kũ yi ŋv ŋanɛ'ŋglõ tɛ̃*
then it is said a male personal name

ɛ ka'lɜ 'yɜlɜ ɛ tɔ̃ 'tu
his (own) lance cord he carry on the back

kũ ŋaɪɲɛ'klæŋ nɛ
and recite the origin myths sit

Then *ŋanɛ'ŋglõ* was sitting reciting the origin myths with his small lance (a small lance hung around the neck by a fibre strap) hanging down his back.

ko kɔ'ma ko 'klæŋ
eat fear (?) (ant eater) eat recite the

ŋa
origin myths

It is the origin myth about the eating of the ant-eater (a tabu animal).

Although the *ŋaɪ* disappears when there is a direct object with these verbs also, the *nɛ* (*n* changes to *ɲ* under the influence of *ŋaɪ* and *eŋ*) is still to be explained.

ŋaɪ also functions as a reflexive:

ti ha ŋaɪ 'plɔ ŋa
he himself bite

He bit himself.

kũ ŋv tã ŋaɪ mɛ kɔ'ðaŋ mu
then he himself distributive place

Then he placed them on himself.

kũ ŋv tã ŋaɪ klam 'nɛ mu
then he himself under place

Then he placed it under-himself.

It is from this last point of view that the text verb is to be understood, i. e. "He put the blanket over himself." I have no examples of this verb without *ŋaɪ*. By analogy with verb number 2, if *a* were substituted for *ŋaɪ* the sentence would mean "He put the blanket over you". The *ŋaɪ*, however, in both of these verbs is exactly the same. In the case of number 2 *ŋaɪ* must precede the verb when it has no other direct object expressed. In the text example *ŋaɪ* is a reflexive pronoun standing for all persons in both singular and plural. In both cases, therefore, it may be looked upon as a pronoun. That this must be so becomes clearer if we remember that both *ŋaɪ* and *eŋ*, the first person independent pronoun, change an *n* to a *ɲ*.

What confuses our translation of *ŋaɪɲɛŋ-'ndvt* as "to place one's self under" is the presence of *tɔ̃*. If the expression *ŋaɪɲɛŋ'ndvt* were translated "he placed (the cloth) over himself" the *tɔ̃* would be thoroughly understandable (see Note 6). As it is, however, the *tɔ̃* is used here by analogy with its use in parallel instances.

59 There is a large class of verbs of one syllable that end in *ke*. Some of these verbs occur also without *ke*. The function of *ke* in these verbs is, however, at present not known.

Examples:

Meaning	With *ke*	Meaning	Without *ke*
(1) to slap on	*pæˈpapke*	the same	*pæˈpaṃ*
(2) for a tree to bend in the breeze	*ˈpæɪke*		
(3) to blink	*ˈpipke*		
(4) to seize suddenly	*kiˈpvpke*		
(5) to dive	*ˈputke*		
(6) to come to the surface	*ˈyutke*	to appear to stick out the head	*yuṇ*
(7) to slip	*ˈpluke*	the same	*pluɪ*
(8) to strike a sharp blow	*ˈpvke*		
(9) open the eyes	*ˈmblitke*	to be ripped	*mbliṇˈmbliṇ*
(10) to be drunk	*ˈndʒake*		
(11) to open the mouth	*ˈyatke*	to sing	*yaṇ*
(12) to enter abruptly	*ˈklvpke*	the same	*ˈklvṃ*
(13) to go away	*ˈŋgɜpke*		
(14) to stop	*ˈhutke*	the same	*ˈhuṇ*
(15) to be absorbed (said of liquids)	*ˈŋgɐpke*	the same	*ŋgɐp*

The above verbs with *ke* are all intransitive. When the construction is such that they must take an object, or what would be in English an object, their taking an object is avoided by the use of *tɔ̃*, the instrumental, or a postposition. There are a great many of these verbs and they are all intransitive or treated intransitively. As far as I have been able to discover the majority of these verbs have no forms without *ke*.

In the following sentence the verb appears both with and without *ke*:

kũ ŋv ɔk ðo ɛ ɛn ˈmbɜ tɛ̃ to
then they before their house big over

koˈɔlo tɔ̃ pæˈpaṃ nɔ ˈɲa to pæˈpap kæ
clay slap on lie stand over slap on

mu ɲaŋlɔ
in the meanwhile.....

Then in preparation they keep plastering their big houses with clay. They plaster and in the meanwhile.....

In this sentence a direct object form is avoided by the use of the postposition *to*.

In the following sentences we have the contrasted constructions of the same verb with and without *ke*:

(1) *e ˈtʃɔ̃ ɛŋ ɲɛn mbɜŋ ˈka e klɛ̃*
I my house[1] large in my head
ˈyut kũ
thrust out and.....

(2) *aŋ ha tɔ̃ ˈyut ke ŋa*
we come to the surface
We come to the surface (after diving).

(3) *haˈkũ ŋv tã ti kɔndælæ tɔ̃ ˈpluke mu*
therefore he its slippery slip
... therefore he slipped on the slippery (surface).

(4) *kũ ŋv tã tɔ̃ ˈpluɪ mu*
then he slip
Then he slipped.

In 3 and 4 we have the intransitive verb again both with and without *ke*.

(5) *ti hatɔ̃ e ˈkulu tɛ̃ mbliṇˈmbliṇ ŋa*
he my cloth tear
He tore my clothes.

[1] This is the only instance in which Kaingang approaches metathesis. An *n* is inserted before the *ɛ* in "house". According to the rule the *n* then changes to *ɲ* under the influence of the first person independent pronoun. But the terminal *n* is also kept.

(6) *a kɔˈna tõ ˈmblitke lɔ*
your eye open imperative
Open your eyes!

In 6 the intransitive verb is used in what would be, in English, a transitive sense. But Kaingang by use of the instrumental changes the sense to "Open with your eyes!" The verb thus remains without an object. 5 is a reduplicated form of the verb without *ke*.

In the following we have a case similar to our English "He entered into an agreement". Here the verb "enter" has no object. But in "He entered the house" it has. In the first sentence the postposition "into" takes the object. Thus in the following Kaingang sentences:

(7) *kaˈŋɔlɔ tõ ˈkivi ŋa ha ŋv*
an insect that cuts wood cut
ti ˈŋglẽ tẽ ki ˈklv mu
his anus into enter
A branch cut by *kaˈŋɔlɔ* entered his rectum.

(8) *kũ ŋv tã ti ˈŋglẽk tẽ ki ˈklupke kũ ti mu*
then it his anus into enter and die
Then it entered his rectum and (he) died.

In 7 and 8 we are dealing with the same intransitive verb. It is kept intransitive by the use of the locative, "into".

In the following instances the verb *ˈhutke* to stop, appears both with and without the *ke* with no change in meaning.

(9) .... *ke tẽ tã ˈhutke mu*
so saying he stop
When he said this he stopped.

(10) *e kɔˈkla hutke lɔ a tõ e*
my *kɔˈkla*[1], stop imperative you me
tfo ɲu kũ ma huɲ mu
angry and you stop
My *kɔˈkla*[1], stop! You are angry with me and you stop (making the wind blow).

[1] The man who treats one's umbilical cord ceremonially and also pierces a male's lower lip for the insertion of the lip plug.

In this list of verbs *ˈyatke* (11) when it means "to open the mouth" cannot take an object. When it means "to sing", however, it retains its intransitive character:

(11) *ˈkũ ŋv tã ti yæ ˈyatke mu*
then he him for open the mouth
Then he opened his mouth for him.

(12) *ɛŋ dzæ ha ma tõ ya ɲɛ*
my song you sing sit
You are sitting singing with my song; i. e. You are singing my song.

We have seen that of the verbs listed 9 and 12 are used in what would be, in English, transitive constructions. In Kaingang, however, the construction is made intransitive in the one case by use of the instrumental (number 9) and in the other by the use of the postposition (or locative) (number 12).

The creation of intransitive constructions by the use of postpositions and the instrumental *tõ* with *ke* verbs is common in Kaingang. Very often the instrumental occurs with a locative:

Examples:

(1) *kũ yi tã ti pan kuˈyɛyɛ*
then it is said he his leg leg-binding
ka ɛ kaˈlɜ tẽ tõ ˈpv ka tõ ˈpvke
on his lance strike on strike
kũ yi tã.....
and it is said he.....
Then, I have been told, he struck him on the leg-binding with his lance. He struck (him), I have been told, and .....

(2) *ti kaˈlɜ tẽ pæɪˈpæɪyæ hatõŋv*
..... his lance chipped
tã ti ka tõ ˈtuŋˈŋge
he him on strike
..... he struck him with his chipped lance.

(3) *ŋv tã taˈva tẽ ti ka*
..... he a male personal name him on
tõ lvpˈke mu
strike
He struck him, *taˈvaɲ*.

(4) *'vut kũ ti klɛ̄ tɔ̄ 'lvpke mu*
..... take and him on top strike
Then he took it (the lance) and struck him.

In 4 we have the use of the postposition "on top of" and in 3 the postposition "on" or "inside". Thus the fact that *ka* in these cases is truly the locative is proved.

In the following sentence the postposition *la* "near" is used:

(5) *kũ ti la tɔ̄ 'yutke mu*
.... then him near come to the surface
..... so (the lance) slid by harmlessly.

The use of the verb *'yutke* in 5 is understandable in connection with its meaning also "to appear".

(6) *yi tā ti ŋglɛ̄ pæ'nɛ tɔ*
.... it is said he his anus turtle[1] there
ki ti ka nɛ'te ti ŋglɛ̄ ku'ka tɔk
on him on stab his anus bone there[e]
tɛ̄ ka tɔ̄ 'tʃɜpke ti ŋaðɔ'pan ki tɔ̄
on strike his anus on
ŋgla'ke yi tā mu
pierce it is said he
..... then, I have been told, he stabbed him on the sacrum; he stabbed him on the sacrum; then he pierced him in the anus, I have been told.

Of these sentences only 5 would also be an intransitive construction in English. In Kaingang the transitive is avoided in all the other cases by the use of postpositions (including the locative). Thus

(1) becomes "..... he struck on his leg bands...."
(2) „ "..... he struck on him...."
(3) „ "..... he struck on him"
(4) „ "..... he struck on him"
(6) „ "..... he struck on his sacrum etc."

[1] *pæ'nɛ* means turtle. If the hard shell of the turtle be compared in shape to the sacrum there can be no doubt what the Kaingang are talking about. The sacrum looks somewhat like a turtle shell.

Reasoning from the example of 1 *tɔ̄* must represent an instrument in all these cases. (See Note 6.) In 1 it will be observed that in the repetition of the statement "he struck", "his leg-bindings", the object of the postposition *ka*, does not appear, but *ka* itself does. So also, "lance" does not appear, but *tɔ̄* does.

Returning to our text example, *ðɛ̄* occurs as follows:

[to] ti 'ðɛn mu mu The bullet pierced through.

I cannot analyze this sentence, but the meaning is so closely parallel to the text example and to those that follow in this note that it should be given in this place. Another example is:

lɔ tā ti pātɔ̄mbæŋ tɔk
..... a conjunction it his shoulder blade there
tɛ̄ lɔ laŋ kũ ti ðɛn'dzuke mu
pierce and him come out on the other side
..... It (the arrow) entered below the shoulder blade from behind and almost came out on the other side; i. e. it pushed up the skin on the other side.

Here *'yuke* (the *y* changes to *dz* after the nasal consonant) is probably *'yutke* and the *t* was not articulated.

In these sentences the meanings are closely parallel. It is therefore necessary to conclude that there is a relationship between *ðɛ̄* and *ðɛn* and that *ðɛ̄* communicates to *'yutke* the significance of "to come out on the other side".

There is one characteristic that all of the verbs under discussion have in common: none of them can take the direct object as long as they are followed by *ke*. The large majority of these verbs are monosyllabic. The exceptions are:

(1) almost to come out on the other side	*ðɛn'dzuke*
(2) to plaster	*pæ'papke*
(3) to swing from	*'vælæke*
(4) to be stupid	*'vivɪke*
(5) to swing against	*kvm'ndælæke*

In **1** and **5** *ðɛn* and *kvm* are functional elements. *kvm* occurs rarely. With the exception of **1** the other verbs on this list seem to be either onomatopoetic (as **2**), or symbolic (as **3** and **5**), or reduplicated (as **4**, from *vi* to avert the eyes); the Kaingang discription of a stupid person emphasizes particularly the wandering of the eyes).

60 Turn around a long object on the long axis, its length being parallel to the horizontal plane. *ðɔ* is a formal element. Verbs beginning with *ð* change the *ð* to *y* or *ɲ* when they are preceded by a direct object. I have no examples with this verb but I give below some others:

ðɔŋgak'taɲ ŋgæ'ke ŋũ mu
pity habitually I
I have pity.

ti 'ha tɔ̃ ti yɔŋgak'taɲ ŋa
he him pity
He pities him.

v'yolo pan 've kũ tã ða'tẽ mu
tapir foot see and he go after (pursue)
When he saw the tapir's tracks he went after (him).

ɔŋ ha tɔ̃ ɛŋ ɲa'ðɛn ŋa
they me pursue
They pursued me.

Modifiers change in the same way when preceded immediately by the element they modify

Examples:

ðɔ'ŋgla kɔ
smooth (pretty, good) is
He is pretty.

For the meaning of *kɔ* see Note 92.

a ðe tukðɛn yɔ'ŋgla
your heart to wrap with narrow binding good
tɔŋ 'ma kũ ɛŋ væŋ 'ɲa ha
this know and me look stand a long time
Look at this, your heart-bundle (a hunting charm) and stand looking at me.

A postposition changes in the same way when immediately preceded by its object.

Examples:

kɔ ðæyæ tẽ 'yi ŋv tã ka 'tẽ mu
wood leaves through he come
He is coming through the grass.

'ði ŋv tã 'tẽ mu
through he go
He goes through.

'kũ ma 'anmɔ ðo ɛt kũ
then you elsewhere before house and.....
Then make a house for (them) off there and..

ti yo na 'ɛn ɲa
him before we house imperative (plural)
Let us make a house (before he comes).

61 An element occasionally used to introduce exclamatory sentences.

62 Indefinite future particle. In constructions with the verbal pronoun *yæ* immediately follows the pronoun as well as the verb. Whenever *yæ* follows the verb the verb takes the active form.

Examples:

ndv'mingo 'kekũ e tʃɔ̃
Sunday[1] [2] I

'puŋ dzæ
to place an arrow or lance-head on the shaft

etʃɔ̃ put 'ke ŋa
I to place a lance-head on the shaft about to
I'm going to place the head of the lance on the shaft on Sunday (probably). I'll place the head of the lance on the shaft on Sunday.

The psychology of this expression is worth noting. The uncertainty in the Indian's mind was expressed by the *yæ*. Then he changed to a more definite expression, *'keŋa*.

etʃɔ̃ ti 've kũ a mɔ̃ 'tv yæ
I him see and you to tell
When I see him I will tell you.

[1] The Kaingang pronunciation of Domingo, the Portuguese for Sunday. See pronunciation of another informant p. 198.

[2] See Note 48 for discussion of this.

Because of its indefinite character *yæ* appears in questions regarding the future.

Examples:

halikeˈlɔ ma yæ ta tẽ ki ka ˈɲa yæ
how long you there in there[1] stand
How long will you remain there?

vembɔ ma yæ ka ɲak tʃiɲ dzæ
interrogative[2] you here[1] stand to grow old
Will you stay here a long time?

63 This must be a combination of the demonstrative, *ˈtɔŋ*, with the verb *keɲ*.

64 *ɛŋ* becomes *e* before voiceless consonants. *t* changes to *tʃ* after *e*. Thus we have the equation *ɛŋ* + *tɔ̃* = *e* + *tɔ̃* = *etʃɔ̃*.

65 This conjunction requires that the active form of the verb precede it. Its use is exceedingly wide.

Examples:

ti ha ŋaɪndzɨ lɔ ti kuˈta ŋa
his laughter his fall
He laughed until he fell over.

tɔkˈtɜ ɲũ kɔɪŋgɜ ˈũ ɔŋ væŋ mu lɔ ŋv
there I man other them see

ɔŋ ˈu nɔndɛ
they good be
I saw some other men there and they were good.

kũ ŋv tã mẽk tẽ tɔ̃ mɛ tẽ ɲa ti
then he tiger distributive go stand his

kaˈtẽ lɔ vˈyolo tẽ ˈhɜ nɔ
come tapir whole lie
Then the tiger went around awhile and on his way back (he saw) the tapir lying (there) whole.

[1] *ka* must be the demonstrative here, although it appears in close association with the verb.

[2] *mbɔ* is an element that frequently occurs in interrogative expressions. *vembɔ* is translated by the informant by the Portuguese „Está capaz?", "Are you able?" But in Santa Catarina among the farmers this means, "Will you?" "Will you, probably?".

This conjunction always implies that two actions take place in such a way that one is an outgrowth of the other.

66 What?

67 *ayɡeleˈmɛŋ* means "to make a noise". Active form of the verb. For participial see Note 70.

68 Bee-hive.

69 To be about to.

70 Participial form of the verb under Note 67.

71 This element is discussed in part under Note 7.

ŋa must be thought of primarily as associated with nouns. Only a sophisticated Kaingang (my informant was the only one) would give a noun without *ŋa*. The question "What is it?" will be answered by the name of the object followed by *ŋa*:

Examples:

tʃɨ ŋa	It is a rattle
pæˈnɛ ŋa	It is a turtle

It is thus that *ŋa* becomes the sign of the participial form of the verb as described under Note 7; and follows the independent pronouns as described under Note 11. Although *ŋa* is above all to be thought of in connection with nouns its relation to *nɛ*, *nɔ*, *ɲaŋ* and *tẽ* is so close that these elements sometimes replace *ŋa*.

Examples:

ti tɔ̃ kɔɪŋgɜŋ ŋa
he man
He was a man.

ɛ tɔ̃ kuˈyɜ nɛ
he shaman
He was a shaman.

ɲaŋˈlɔ ɔŋ mbæ tẽ kuˈðɔ nɛ
now their husband old sit
Now, their husband was old.

kaˈkðɨ ðɨ kuˈðɔ ŋa
a female personal name feminine old
kaˈkðɨ is very old.

So, also, *ŋa* and *nɛ*, *nɔ*, *ɲaŋ* and *tɛ̃* appear in the same contexts with the same meaning when these elements cannot be translated as "to be".

Examples:

e tʃõ ko ˈvaɪ ŋa
I eat never
I never eat (it).

ɛŋ ˈha nũ mblo ˈvaɪ kũ ɲa
I I swim never and
I do not know how to swim; i. e. I never swim.

ði ki nũ ŋaɪmbikti ˈvaɪ kũ nũ tɛ̃
her in I dream never and I
I never dream of her.

e tʃõ ði ki ŋaɪmbikˈti ˈvaɪ ŋa
I her in dream never
I never dream of her.

But on the whole *ŋa* rarely appears in the same contexts as the other elements under discussion. This is because it is rarely used with elements that express qualities or states of being, whereas *nɛ*, *nɔ*, *ɲaŋ* and *tɛ̃* are.

tiˈha ŋv nɛ means "he lives there". *tiˈhaŋa* means "it is he". *kɔˈðɨ ŋv nɛ* means "there was a stone (there)"; *kɔˈðɨ ŋa* means "it is a stone".

kɔpãkɜ ˈãta ŋv nɛ
a male personal name the afore-said
means "*kɔpãˈkɜ* was there" (i. e. alive at that time). But *kɔpãˈkɜ ŋa* comes in answer to the question "Who is it?"; "It is *kɔpãˈkɜ*".

Thus, when *nɛ*, *nɔ*, and *ɲaŋ* occur with nouns alone or with pronouns alone they imply position or real existence. This is borne out by their frequent association with demonstratives (and locatives). *ŋa* never alone implies position and never occurs with locatives.

nɛ, *nɔ* and *ɲaŋ* are true verbs, they have meaning in their own right and function as auxiliaries. *ŋa* is purely a functional element and has only contextual or derived meaning. It never functions as an auxiliary. Some examples of *nɛ*, *nɔ* and *ɲaŋ* as auxiliaries are:

kũ tã ˈvæŋ nɛ
then he see
Then he was watching.

ŋguŋ ŋv ˈklo ɲɛ
a monkey (bujiu) call
A bujiu[1] was calling.

pæˈðɔ ŋv ði nɔ
nurse she
She (the infant) was nursing.

pæˈðɔ ŋv ði ɲa
nurse she
She (i. e. the infant) was nursing.

ɲaŋ has both participial and active (*ɲa*) forms.

72 To approach. This verb overlaps *kaˈtɛŋ*, to come. The former, however, is less general in meaning. *ka ˈtã* has this one form only.

73 When a nasal consonant occurs in accented position or immediately after an accented syllable it is sometimes exploded nasally.

74 Together with, a postposition.

75 The subject is sometimes repeated in a long clause or series of clauses.

76 To eat honey.

77 This *mu* frequently occurs before *ɲaŋlɔ* without changing its meaning. It is the verbal particle that is repeated with a rhetorical accent.

78 In the meanwhile. A disjunctive like *haɲaŋlɔ*. *haɲaŋlɔ*, however, is an adversitive.

79 Humming bird.

80 To give or to place. The general term *ði* refers to long objects when they are given or when they are placed horizontally; *ðaŋ* refers to objects that are generally set on the ground. When long objects are stood up this verb is also used.

81 An idiomatic use of the postposition that generally means "in front of" or "before". It is the reverse of the postposition

[1] The bujiu is the Brazilian name for the howler monkey.

ndv, behind. The use of *yo*, however, is rather wide.

Examples:

kũ ŋv ði ti yo ka'tɛ̄ mu
then she him before come
Then she came back before him.

ði yo ɔŋ nɔ ŋa
her before their
They were (born) before her.

ɛŋ dʒo ðɜ'k ði tɛ̄ ki ũ kɔ'ða
me pine tree seed in other shell
Shell some pine-nuts for me!

ɛŋ 'dʒo ndæn 'ŋgla
me thing roast
Roast something for me!

kũ ðo 'kat kũ
then dig and....
... then dig (in preparation for), and ...

82 Water.

83 To conceal or steal one object; to steal several objects *piŋ'dʒu*. Participial and active forms are the same. *pæ'ðiŋ*, to chop out (or pierce) a bee-hive forms its plural in the same way — *pi'kðiŋ*.

84 To drink water. Usually the verb *ko*, to eat, is used of beer. Active form of *ka'klaŋ* is *ka'klaŋ*. No plural form.

85 An idiomatic use of the locative. It also occurs with *ũ*, other: — *ki'ũ* — and means "some of".

86 To do. This verb was not sufficiently investigated to permit a satisfactory discussion.

87 The "word" for "mouth" is *ŋat'ki*. Nevertheless in sentences it behaves with considerable irregularity.

Examples:

'nde nɔ ŋv a ŋatki 'ka tɛ̄ ka ku'tfuŋ nɔ
what lie your mouth inside in red lie
What (is that) red (thing) on the inside of your mouth?

kũ ɔk ti ŋat ki ũ 'tfuu mu
then they his mouth in other pour
Then they pour some into his mouth.

'kũ ŋv ki'lõ tɛ̄ v'yolo tɛ̄tɔ̄ ɛ ŋat ka 'kle tɛ̄kũ
then paca[1] tapir his mouth in escape and so....
Then, when the tapir escaped from the paca.....

When a person is dying he says things about those around him, usually fortelling death. This is called *ŋatkɜŋ'na*, where *kɜŋ'na* means "to err". But *ŋatki'ðɜl3* means "mouth skin" or "lip". These examples are too few for the derivation of a rule.

88 Active form of the verb "to be dry". Participial form *ka'ŋga*. *kuŋ'ŋguŋ*, used of herbage seems to be related to it, although I do not know in what way.

89 Near by.

90 No! I have marked a low rising tone here because the peculiar musical character of the Kaingang negation is so striking. It is what singing teachers call "a scooped tone".

91 Far away. Used also of distance in time.

92 A predicating element. Elements associated with *kɔ* can take only the independent pronouns.

A large number of expressions of sensation and feeling occur in constructions with *kɔ*.

Examples:

(1) It is hot. *lõ kɔ*
hot

(2) I am cold. *ku'tʃɔ kɔ*
cold

(3) I want to go. *e tʃɛ̄k 'tfvlv kɔ*
my go to be desirous

(4) I am hungry. *e ku'yɛlɛ kɔ*
my hunger

(5) It is strong (drink or odor). *'ðɔ kɔ*
strong

(6) It stinks. *'ŋgɛlɛ kɔ*
odor

[1] A rodent. It is amphibious.

(7) It is sour. *ˈðulu kɔ*
sour

(8) I am sleepy. *ɲuˈŋla kɔ*
sleepy

(9) I am thirsty. *ɲat kaˈŋga kɔ*
mouth dry

(10) I am sick. *e kɔˈŋgɔ kɔ*
my sickness

(11) I am angry. *e ðe*
my heart split

klɨˈklɨ kɔ
(in several places)

(12) I am annoyed. *eŋ ŋaɪplɔ kɔ*
my annoyed

But a number of expressions that do not fall into this category also occur with *kɔ*:

(13) The forest is wet. *kakˈðælæ kɔ*
wet forest

(14) It is hard. *tolɔ kɔ*
hard

(15) There were many houses (there). *me*
distributive

ɛ tɛ̃ kaˈmbɜ kɔ
house many

(16) It is windy. *kuˈhu kɔ*
wind

(17) It is fat. *ˈta kɔ*
fat

(18) It is long. *ˈtæyæ kɔ*
long

Some of these (3, 10 and 15 for example) occur with elements other than *kɔ*. 3 and 10 occur with *ŋa*, and 15 occurs with *tɛ̃*.

These considerations prevent our concluding that *kɔ* is limited to use with expressions of sensation and feeling. Nevertheless the large number of such expressions that occur with *kɔ* is striking.

Although *kɔ* at times functions like *ŋa*, thus,

I am sick. *e kɔŋgɔ* { *kɔ* / *ŋa*
my sickness

it differs from *ŋa* in that it does not occur with *tɔ̃*. Thus, the expressions occuring with *kɔ* and a pronoun become nominal in character:

4 becomes "My hunger".
10 „ "My sickness".
12 „ "My annoyance".

Some of these expressions are used in other contexts as nouns without *kɔ*:

kuˈhu means "wind".
taŋ „ "fat".
ˈŋgɛlɛ „ "odor".

Their use here with a predicating element gives them the force of what in English would be adverbs and adjectives. In Kaingang, however, they remain nouns.

93 This element generally implies wholeness, but it is used also as an intensifier.

Examples:

ˈmuɲaŋlɔ ti ya ˈhɜ tã nɛ
in the mean while his tooth it sit
Now, all his teeth were in.

kũ ŋv tã mɛ̃k tɛ̃ tɔ̃ mɛ ˈtɛ̃ ɲa
then he tiger distributive go stand

ti kaˈtɛ̃ lɔ vˈyolo tɛ̃ ˈhɜ ŋɔ
his come tapir whole lie
Then he, the tiger went around (and when) he came back the tapir was lying (there) whole.

pɛ̃ ˈhɜ fires burning brightly.
fire

a tɔ̃ ve tɛ̃ hɜ tɛ̃
you see
You see well.

94 *ha* and *ŋv* combine to form a demonstrative that acts like a conjunction. See Note 33 also. In view of the fact that *ŋv* frequently combines with *ha* to form demonstrative ideas it should be considered as a demonstrative fundamentally, although no translation of it is possible. It would be necessary therefore to conclude that third person subjects in active constructions must be accompanied by the demonstrative. I give below a few examples of the combina-

tion of *ŋv* with other elements to form demonstrative ideas:

(1) *ɛŋ lēlɛ ˈtũ ha ki ŋv kuˈlak tē mu*
my awake not morning
I did not awake until morning.

This example should be compared with similar examples under Note 33 in the discussion of temporal demonstratives. It is exactly the same as some of them with the addition of *ŋv*.

The following sentences should be compared with (1):

(2) *ya ti nɛ ha ŋv mēk tē ti ˈmbaŋ mu*
sing his sit tiger him kill
While he was singing the tiger killed him.

(3) *ti ˈya ŋɛ tēkũ ŋv tā ti kɔˈmaŋ mu*
his sing sit and so he him fear
When he (A) was there singing he (B) became afraid of him (A).

(4) *ti tɔ̃ ɔŋ mɔ̃ yaŋ haˈki kuˈlak tē mu*
he them to sing morning
He sang for them until morning.

(5) *tē kũ mēk tē tɔ̃ ti ya ˈnɔ tē ki ti*
... and so tiger his sing lie him
kaŋ mɛı ˈke haŋv ti ˈplũ ði
seize about to his wife feminine
ha kaŋˈmē kũ
seize and .....
While he was singing the tiger was about to seize him but seized his wife.

(1) and (4) are similar in construction and meaning, but in (4) the *ŋv* is not present. (5) and (2) are also similar in construction and meaning but different forms of the demonstrative-conjunction appear.

The English translation in (3) is a literal translation of my linguistic informant's Portuguese.

Thus the elements under discussion in the text indicate that after a long trip only does one find water: "I travel a good deal *and then* I drink water"; or "I travel a good deal and *right there* I drink water".

95 Wet.

96 Distributive. This may mean that they licked wet stones,in which case the distributive is used because the action was performed on more than one object; or it may mean that they licked a wide area on the same stone, because of the distribution of the activity. It probably means both.

97 This is the only instance of this verb that I have.

98 I am not familiar with this bird.

99 To walk about. This verb occurs very rarely with verbal particles. The text form is its only one.

This is an example of verb combination. I have very few examples of the combination of this verb with others, but other combinations may be discussed. Verbs of motion follow the verb with which they combine and require that the combining verb be in the active form. The verbs of motion themselves take the active or the participial form depending on whether they occur with *mu* or *ŋa*.

Examples:

kũ ŋv ɔŋ ˈkɔlɔkũ aˈklæŋ ˈmũ mu
then they later hunt go
Then, later they went hunting.

ɛŋ pɔ̃ kaıˈtʃolo tē pæˈle katɛŋ
me for dog lead come
Bring a dog for me.

patˈkle tē ŋv ti kɔˈnak ˈtē mu
a male personal name him look for go
patˈkle went to look for him.

	Active	*Participial*
to hunt	*aˈklæŋ*	*aˈklæıŋ*
to lead (holding the end of something)	*pæˈle*	*pænˈvelɛ*
to look for	*kɔˈnaŋ*	*kɔˈna*

The verb *kaˈŋglɔŋ*, to imitate or to try out follows the verbs with which it combines. Of this I have examples, with but one ex-

ception, solely of verbs of Class I (See Note 7). I give below the exception:

'kũ ŋv tã 'tɛŋ ka'ŋglɔn mu
then he go try

Then he tried (experimented) flying. (There is no verb for flying. The example is taken from a text in which the man was trying to fly.) The active form of "to go" is *tẽ*.

Examples such as the following are rare:

yæ nũ sabão to 'putke mba
indefinite future I soap dive take

I am going to dive for the soap.

kũ ði mblã tõ mbaŋ 'lɛŋ mu
then feminine ashes take throw

Then she takes ashes and throws them into the pot.

ti 'ha ŋv ku'klõ tẽ tõ klam 'ðaŋ mbaŋ
he pot under place take

kæ'ke mu
habitually

He puts the pot under (the pipe) and then takes it away.

The most freely combining verbs in Kaingang are *nɛ*, to sit; *nɔ* to lie; and *ɲaŋ* to stand. They indicate continued action. With very few exceptions they also require that the combining verb be in the active form. They always follow the combining form.

Examples:

kũ tã væŋ nɛ
then he see

Then he was watching.

kũ tã ti mblæ ndiŋ nɛ
then he him together with joke

Then he joked with him.

kũ yi tã ki pæŋ nɛ
then it is said he there make beer

Then he was making beer there.

ɲaŋlɔ ɔŋ ŋgɔyo tẽ klẽ
in the meanwhile they water on top

kɔı'tʃæŋ nɔndɛ
to make a bridge

In the meanwhile they were making a bridge over the river.

The following example is an exception:

ti plũ tẽ ði ði 'tɛlɛ nɔ
his wife feminine feminine die

His wife was dying.

ti tõ mõk tẽ pæti ɲa tẽ 'klam nɔ
he beehive pierce under lie

He was lying under the bee-hive he had been piercing.

kũ ŋv tã mẽk tẽtõ mɛ 'tẽ ɲa ti
then he tiger distributive go stand his

ka'tẽ lɔ v'yolo tẽ 'hɜ nɔ
come tapir whole lie

Then the tiger continued on and when he came back there was the tapir whole.

ti hatõ ɛŋ væŋ 'ɲaŋ ŋa
he me see stand

He is looking at me.

tẽ kũ ɔŋ ti ya'vaŋ nɔ'ɲa
and so they him shoot at and miss lie stand

.....Then they kept shooting at him.....

I give below the active and participial forms of the relevant verbs in the above examples:

	Active	*Participial*
to see	*væŋ*	*ve*
to joke or riducule	*'ndiŋ*	*ndi*
to make beer	*pæŋ*	*pe*
to make a bridge	*kɔı'tʃæŋ*	*kɔı'tʃe*
to die	*ti*	*'tɛlɛ*
to pierce a hive	*pæ'ti*	*pæ'ðiŋ*
to go	*tẽ*	*tɛŋ*
to shoot at and miss	*ða'vaŋ*	*ða'vu*

100 Another instance of verb combination. The subject of this sentence is "The *læŋ'dʒili* (bird's) coming...". Since *ŋv* appears immediately after *ɲaŋlɔ* it is not necessary to

place it after the subject again, although it does occur, as follows:

'mupaŋlɔ ŋv ti yi tɛ̃ ŋv tɛ̃ mu
in the meanwhile his child go

In the meanwhile his son went.

This form of construction, in which the verb becomes the subject of a sentence in which the action is continuous is common in Kaingang.

Examples:

aŋ 'hui ŋv tɛ̃ ɲa
our whistle stand

They are (or someone is) whistling.

ndæ 'ũ ka'tɛŋ ŋv tɛ̃ ɲa
thing other come stand

There comes something!

In the following sentence we have the same type of construction as in the text and in sentence (1), but with *tɔ̃*.

ði tɔ̃ kæi'tʃæ 'nui tɛ̃ ɲa
she pine-knots pull

By-her-pine-knots-pulling stands; i. e. She was pulling pine-knots (out of the ground).

101 This is parenthetical; i. e. "Then he, *tʃi'klæ*, ..."

102 To hear. Participial, *ma*; active *maŋ*. The text example is in the active form but the *k* has disappeared under the influence of the *k* in *kũ*.

103 To hide oneself. Participial and active the same. Plural, *ŋaimbiŋ'dzu*. See Note 58.

104 Turtle.

105 To set at right angles to the earth. "To rise from a reclining position to a sitting one" is *'vipkæ nɛ*.

106 To tilt back. In the door of my house I had a small panel (about 18" × 6") that swung open in a direction at right angles to the swing of the door. That is, the door opened from left to right and the panel swung open from top to bottom. Thus while the hinges of the door were on the right side of the door the hinges of the panel were on the bottom of the panel. My informant would give instructions for closing this panel in this way:

ðan'dzi kũ nɛðæiŋ lɔ
tilt up and thrust imperative

Tilt (it) up and thrust (it into position)!

The appearance of *ð* when the verb is not preceded by the object is to be observed here.

107 This expression seems to be made up of *kɔlɔ*, ready, plus the connective *kũ*.

108 To close. *ki tɔ̃ 'tɔpkæ* Close (the door)!

109 An exclamation.

110 This form is totally strange to me. I should expect

'ŋgɔyo 'væŋ nũ mu.
water see I

It is possible that we are dealing with *ve*, the participial form of the verb plus *mu* the verbal particle for the active form of the verb. I have shown in Note 40 that sometimes the participial form of the verb appears with *mu* if the meaning is intransitive. Since ends of statements in Kaingang are weakly articulated it is not improbable that I should not have heard the *u* in *mu*.

111 Plural of "to come".

112 To finish. Follows verbs. Means to finish doing something. Refers to a completed action.

113 *kaŋ* also appears without this element the meaning of which I do not know. I give below the other examples I have:

kũ tã ɛ ka'lɜ tɛ̃ 'va'ŋdɛ.....
then he his lance take

Then he took his lance. (This is said of a man after he had just stabbed another man with it. This seems to refer to the withdrawal of the lance from the wound).

kũ tã ɛ ka'lɜ tɛ̃ ŋai'ndzvt pæn'va
then he his lance reflexive drag

ndɛ nɛk'tæ ndɛ
on all fours

He dashed out on all fours dragging his lance along the ground. (He held the handle

of the lance and the head was dragging along the ground).

la tɛ̃ ˈlɛ̃lɛ ndɛ tɔk to kɔɪŋgɜŋ
sun awake alive that this man

tɛlɛ kɛ kũ ti ɲanˈŋgɔ ŋa
die about to and his

When the sun appears and disappears behind the clouds they say that a man is going to die and it is his *ɲanˈŋgɔ*.

kũ ŋv tã ˈvæk tɛ̃ pæŋˈɲɛ ndɛ mu
then he see circumambulate

When he saw (him) he made a circuit.

kũ ði ˈma kũ ti yo lɜˈlɔ ndɛ
then she hear and him in front of to move over

Then when she heard this she moved over (to make room) for him.

kũ ŋv tã ˈmblv ndɛ mu
then he to shiver into a thousand pieces

Then he shivered into a thousand pieces.

ɔŋ ˈlat ka ndɛ mu
..... them slaughter finish

(They) killed them all.

kũ tã ɛ vɨyɨ tɛ̃ væŋvæŋ hamɔ̃
then he his bow to wave to be about to

ˈŋgɯmɔ̃ lɛŋ ndɛ kuˈta mu
up above throw (plural) fall

Then he was about to raise his bow above (himself) when he fell (over backward). That is to say, he sprang to his feet with his bow in both hands and was about to hold it up in front of himself to ward off blows from a lance when he fell over backwards.

114 To take off or out of. Participial *mbaŋ*. Active *mbaŋ*.

115 On top of. A postposition. See also Note 33.

116 When this expression appears as a verb the *mɔ* is dropped. When it is alone in a sentence without any other verb the *mɔ* does not appear.

Examples:

kakɔ ŋv tã ɲa
he stand

He paid no attention.

ha kũ ŋv ɔŋ ti ka ˈkɔ mu
therefore they him pay not attention

Therefore they paid no attention to him (let him alone).

mɔ appears in association with adverbs, thus:

ŋaɪˈtʃɨli mɔ ɔk tɔ̃ nɛˈviŋ ŋa
a long time ago they do

A long time ago they did it.

yæ nũ ɛŋ ha e pili mɔ
indefinite future I I I one

yæ nũ to ũ pæˈnũ
indefinite future I other shoot at and hit

yæ tɛŋ
in order to go

I am going alone to shoot some.

mu ɲaŋˈlɔ ŋv tã ˈŋgɯmɔ̃ kũ ŋv
in the meanwhile he up above[1] and

tã kuˈðɛ̃ ka ɲa
he loop in stand

In the meanwhile he was up above resting in his (climbing) loop.

mɔ may, therefore, be looked upon as an adverbializer.

I have only two other examples of *mɔ* attached to other elements:

a yɜklæ mɔ̃ nũ yæ a
your thinking I indefinite future you

ˈtaɪ to aklæ ˈtũ tɛ̃ ɲaŋˈlɔ nũ a ˈtaɪ
kill think not I you kill

tɛ̃
definite future

You think that I won't kill you but I will.

[1] I have examples of this element with the vowel both nasalized and unnasalized. Since the contexts are always similar I am giving both types of vowels in the discussion of the same element. The examples of the use of this element are few.

tɛ̃kũ ti mblæ ɔŋ mblæ
and so him together with them together with

ðɔŋndeɲ mɔ mu
well disposed toward each other

... and so with him and them (you) lived on good terms.

117 Probably *ŋv*. There are examples of *ŋv* used thus as a conjunction:

ti yɔklæk tɛŋ ŋv vˈyolo ũ pænũ mu
his hunting go tapir other shoot

He went hunting and shot a tapir.

118 To stop doing something. See Note 36.

119 Very; a great deal. An adverb expressing greater degree.

120 Therefore.

121 To look for. Participial *kɔˈna*.

122 This is the only example I have of this construction, i. e. the active particle followed by *kæke*. It could very well be *kɔnaŋˈmũ* "..... go to look for....". This would make perfect sense and be correct grammatically.

Note: Since writing the foregoing I have changed my point of view somewhat. Firth, with regard to the statement made at the top of page 181, that if *ðɜɪˈpa* were a verb it would have both *ŋa* and *mu* forms, it is necessary to point out that some verbs are the same in both active and participial constructions. (See page 185). Second, although in Kaı _ .ng grammar some states (i. e. qualities) are treated like things (i. e. nouns), others are treated like activities (i. e. verbs). My reasons for thinking so are as follows: 1) The syntactical positions of *tɛ̃* and the elements expressing qualities in sentences 5—9, page 180, are the same as those of *mu* and the verb in active constructions. (See page 187). *mu* also is the particle associated with the active form of verbs. (See page 185). 2) *tɛ̃, nɔ* to lie, *ɲaŋ* to stand, *nɛ* to sit, and *mu* all occur terminally. 3) *tɛ̃* sometimes, *nɔ, ɲaŋ* and *nɛ* with but rare exceptions require the active form of the verb. (See page 215). 4) Whenever *nɔ, ɲaŋ* and *nɛ* occur without *ŋa* (see Note 71, page 210 and examples on page 181), that is to say, in the great majority of cases, they take active pronominal subjects. When *tɛ̃* has a pronominal subject it is always an active pronoun. (See sentences 5—8 and 11—14 page 180 and Note 11, page 186).

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REVIEW

Manuel J. Andrade. *Quileute* (pp. 142), Extract from *Handbook of American Indian Languages*, vol. III, New York, Columbia University Press, 1933.

On the basis of material gathered by L. J. Frachtenberg in 1915 and 1916 and of additional material gathered by himself in a six-weeks field trip in 1928, Andrade has given us a good preliminary sketch of a difficult language. It is not, and is not offered as, a complete and final treatise on the language, but it succeeds in discovering and presenting the chief outlines and many important details of the structure of Quileute. The text material has already appeared as *Quileute Texts*, 1931, vol. xii of Columbia University Contributions to Anthropology.

Quileute, now spoken by about 180 individuals at the mouth of the Quileute River, comprises with the now extinct Chemakum language the Chemakuan stock. In phonetics and morphological structure it has a close resemblance to the Nootkan dialects, but lexical resemblances are not easy to find. Still one finds enough good comparisons to feel that the possibility of an ancient historical connection between Chemakuan and Wakashan may be worth investigation. Aside from obvious identities (e. g., Q. *qa·'wats*, Nootka *qa·wats* "potatoes", Q. *tcîbò·d* "fish hook", Nitinat *tcîbu·d*, Nootka *tcimon* "halibut hook") which may be due to recent borrowing, one might mention the following; Q. *tux-*, Nit. *tux^{w}-*, N. *ta·x^{w}-* "to spit"; Q. *pux·w-* "to drift", N. *poχ^{w}-* "to float"; Chemakum *t'so-*, Q. *-t'si* "water", N. *t'sa-* "to flow, river"; Q. *hé-* formal base referring to a specific object (see p. 182), Nootkan demonstrative base **hi-* in N. *hit*, *hist-* "there", *hita-*, *hin-* empty stem; Q. *ó-* formal base of locative reference, N. *to-* "it, that"; Q. *-s (-si, -so)* "roof", N. *-a▽s*[1] "on a surface", *-a▽st'sa* "on the roof"; Q. *-ł* "face", N. *-o▽ł* "on the face"; Q. *-sid* or *t'sit* "water", N. *-sit* "on a liquid", *-t'sit(ɬ)-* "in water, in a water hole"; Q. *-pat*, N. *-mapt*, Nit. *-pt* "plant"; Q. *-c*, N. *-citł*, *-tcitł* inceptive; Q. *-do* "to become", Nit. *-adutł*, N. *-anotł* inceptive.

Like other languages of the same region, Quileute has a rich consonant system, but few vowels. Except for *b*, *d* (which correspond to Chemakum *m*, *n)*, *w*, *y*, and *l*, all the consonants are voiceless; they are stops and affricatives, glottalized stops and affricatives, fricatives, and ' and *h*. Andrade does not write initial glottal stop on the ground that it is rather weak in its acoustic effect and that if it is omitted, "the effect on the native, if he can be made aware of it at all, seems to be analogous to that of a failure to reproduce exactly the quality of the vowel concerned" (p. 157). This method of approaching the problem is not very satisfactory, because, if there were a glottal stop of consonantal significance in this position, the native would naturally tend to hear it whether or not it was actually pronounced by the student. The student should rather take the attitude that, if glottal stop is known to be a regular consonant of the language, then every occurrence of glottal stop is to be taken as a significant consonant unless there is definite evidence to the contrary. In the present case, the significant nature of initial glottal stop is indirectly demonstrated by the fact that a glottal stop is "inserted" when an "initial vowel" is reduplicated (p. 187). *éca''^{a}q'wa* "warrior", *é'eca''q'wa* "warriors" (properly *'éca''q'wa*, *'é'eca''q'wa)* doubtless represent the same type of reduplication as *dók^{u}t'cit* "head", *dódok^{u}t'cit* "heads."

The author lists six vowels (exclusive of long vowels): *u*, *o*, *a*, *ä*, *e*, *i*. These vowels each represent a range of phonetically distinguishable types depending on the nature of the consonants that precede and follow. Is the author attempting to represent the specifically Quileute (the phonemic) classification of vowels rather than the general classification provided by phonetic science as a basis for descriptive phonetics? If so, then he should by all means combine *i* with *e* and *u* with *o*. His symbol *e* represents a range of qualities including [ɛ] and [e]; the internal evidence clearly indicates that [ɪ] (the author's *i*) is no more to be distinguished from [e] than [e] from [ɛ]. This assertion is made on the basis of a very high positive correlation found to exist between the occurrence of *i* and certain consonants *(y, tc, c, t'c, ts, s, t's)* immediately preceding on the one hand, and between *e* and certain other consonants *(χ, q, h)* immediately preceding on the other, with intermediary degrees of correlation between these vowels and other consonants. In spite of the fact that the count was limited only to the first 11 pages of *Quileute Texts* and in spite of the fact that, for various reasons, the results cannot be taken as direct and accurate indexes of the use of certain phonetic entities in Quileute speech, the definite patterning of the results points inevitably to the conclusion given, especially in view of the fact that there are many instances in the grammar, as well as in the texts, where the same morpheme is written now with *e*, now with *i*, e. g., *awe-* (or

[1] ▽ in Nootka indicates a vowel of variable length, variable in accordance with syllabic position.

awi-) "night" (p. 200); *-sil* (or *-sel)* passive (p. 249); *hé't'sis* or *hé't'ses* "when he" and *hé't'siks* or *hé't'seks* "when she" (p. 276); *lobi* (p. 221), *lobe* "to die" (p. 224); etc. In the reduplications given on p. 188, there are a number of cases where *i* matches *e* and vice versa (e. g., *hétkul: heytkul, ce·'qol: ciyè·qol,* etc.). In only one place is there any implication that *e* and *i* need to be counted as separate entities, namely in the rule given concerning the 3rd pers. indicative (p. 203); "After *a* and *e* we find *-χas*; after *i, o, u,* the form *-s* is employed..." But this rule is not supported by any body of examples, and a contradiction is found in *-tilas* < *-tila* + *-s* which occurs twice on p. 236. The only cases of *-χas* after *e* observed were after one particular element, the formal base *hé-*; it is a fair conclusion until further evidence be found that there is an error in the present statement of the rule, which then cannot be thought of as conflicting with the large body of evidence showing that *e* and *i* are not different phonemes. The kind of evidence presented in the case of *e* and *i* could also be brought forward in the case of *o* and *u*. The vowel phonemes of Quileute, then, are;

e [ɪ, e, ɛ]	*e·*
ă [low ɛ]	
a [ă, a, ɑ]	*a·*
o [u, ʊ, o]	*o·*

ă is a phoneme of limited occurrence with no long correspondent. The author tells me, in a letter, that its description as an "open" variety of the sound of *a* in *mat* is a typographical error; it should be the *e* of *met*.

Quileute has a system of pitch accent of the general type of Takelma or Lithuanian, i. e., there is more than one kind of accent differentiated on the basis of pitch. This accent presents one of the most difficult problems of the whole language and, while the author has not worked it out completely, he presents some interesting material with tonal analyses made on the basis of phonograph records by George Herzog.

Although the point is not made in so many words, one gathers that the phenomena of "dieresis" (a slight pause between a vowel and a following consonant) and consonantal length are to be thought of only in connection with accent, that both of these processes are special prosodic treatments that may affect the consonant immediately following an accented short vowel. It is possible that the insertion of a glottal stop before a glottalized consonant (see p. 176) may in some cases have the same basis.

The Quileute word is made up of a single morpheme (a free morpheme) or of an initial morpheme with one or more postpositive morphemes. Initial morphemes are incapable of occurring after other morphemes, and postpositive morphemes can never begin the word. Postpositive morphemes, of which a couple of hundred are listed, often express very concrete meanings (e. g., *-os* "nose", *-t'sil* "to spy, to catch a glimpse of"). It is for this reason that the author prefers to call them postpositive morphemes rather than suffixes; however, there would have been no objection to calling them suffixes just as Boas used this term in treating similar elements in Kwakiutl. The initial morphemes include elements of concrete meaning, but also others including three formal bases of very general meaning whose function is, loosely speaking, to make possible the use of postpositive elements when an initial morpheme of specific meaning is to be avoided.

There are a set of four verb classes which determine the suffixes used for expressing the objective pronominal notions, the causative, and the passive. All words (other than demonstratives and interjections) have an inherent aspect, either momentaneous or durative; duratives can be derived from momentaneous and momentaneous from duratives by suffixation and change in the length of the stem vowel. The notions of repetition and distributive plurality are expressed by reduplication.

Pronominal notions, which are expressed by suffixes and by independent free morphemes, are expressed in connection with modal and relational notions. Thus, there are sets of pronouns for: indicative (suffixed or independent), interrogative (suffixed), subjunctive (independent), conditional (independent), imperative (independent), possessive (suffixed or independent), objective (suffixed). The pronouns distinguish singular and plural in first, second, and third persons. The third person is further subdivided in a complicated way on the basis of sex, visibility, familiarity (known versus unknown). The whole system reminds one of Kwakiutl.

Syntactic relations are expressed by means of a set of articles which indicate case as well as number and gender.

A specimen text with morphological and grammatical analysis is included in the volume and there is a useful "Index of Subjects." All in all, this sketch of Quileute is a competent piece of work. While there are a few weaknesses in the treatment of phonetics, the morphology is good and the treatment of syntactic matters is excellent.

Morris Swadesh
October 25, 1934.

NOTES.

Desiring to increase the material on hand for the advance of linguistic investigations in Mexican languages, and to reproduce the more important old manuscripts and prints existing, which have been practically inaccessible to the foreign student until now, the Mexican Institute for Linguistic Investigations has appointed an Editorial Committee composed of two sections, one technical and the other administrative, whose work will be started in the present year.

This Editorial Committee plans to publish successively, as its financial means may permit, the most complete and recent Dictionaries and Grammars of the numerous indigenous languages still spoken in this country, as well as dialectical studies of the Spanish Language, either re-editing in critical editions our most representative works thereon, or reproducing the already existing monographs on regional languages.

The Editorial Committee, having in mind a large program, plans also to edit works which will contribute to the advance of Mexican Science in its various aspects, and for this purpose has secured the cooperation of the "German Mexican Humboldt Society" which is organized for the same object.

During its two years of existence, The Mexican Institute for Linguistic Investigations has also succeeded in gaining the cooperation of a large number of Mexican scholars in linguistic studies, as well as that of distinguished foreign philologists. The technical execution of all publications which will be brought out by our Editorial Committee is warranted by the experience of the members of the Institute, who will personally supervise any work published by the department.

Dictionaries, Grammars, Books on History, Archeology, Natural Science, Literature, Monographs, Translations of foreign works and other standard works on Mexico, will be published from now on in high class editions.

Mexico, D. F., March 25th. 1935.